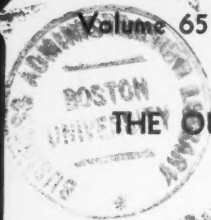


Public Utilities

Volume 65 No. 1



January 7, 1960



THE OUTLOOK FOR PUBLIC UTILITIES—1960

By Francis X. Welch

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Pitfalls to Avoid in Canadian Utility Regulation

By Peter Jaffray

« »

The Utilities' Crystal Gazers

By John J. Hassett

« »

Capitalization under the Holding Company Act

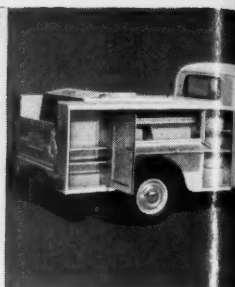
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Public Utilities

FORTNIGHTLY

VOLUME 65

JANUARY 7, 1960

NUMBER 1



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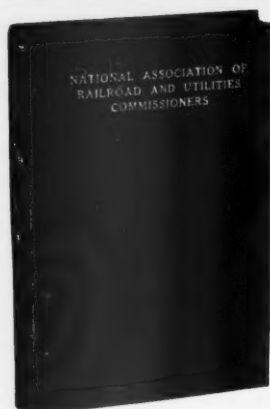
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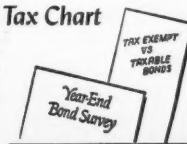
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Pages with the Editors

At some future date historians are bound to look back on the year just ended and observe that it was the "visit- ingest" year of the second half of the twentieth century. We here in Washington are accustomed to the large number of Representatives and Senators who each year "junket" to various parts of the world on commissions, inspection trips, etc. However, in 1959 these "junkets" were eclipsed by the visit of Soviet Premier Khrushchev to the United States and by President Eisenhower's globe-trotting in the month just past.

THE area of exchange visits seems to cover just about every field. Russian and American atomic scientists have payed each other exchange inspection trips. We have had an opportunity to look at some of Russia's cultural achievements in the field of the dance, the cinema, and music. An American group, exponents of expanding government operations in the electric power field, have brought back glowing accounts of Russian achievements in the hydroelectric field.

THE warm-up in the cold war has not been restricted to "visitations." Concrete projects have been proposed which would further cement American-Soviet relations. To mention only a few, the U.S.S.R. has proposed that the two nations might co-

operate in the construction of a large atom smasher. The U.S.A. and the U.S.S.R. already are committed to exchange ideas on such projects as control of H-bomb reactions for the development of power. U. S. officials have invited Russia to make use of this country's world-wide satellite tracking network when and if the U.S.S.R. decides to launch a man into space.

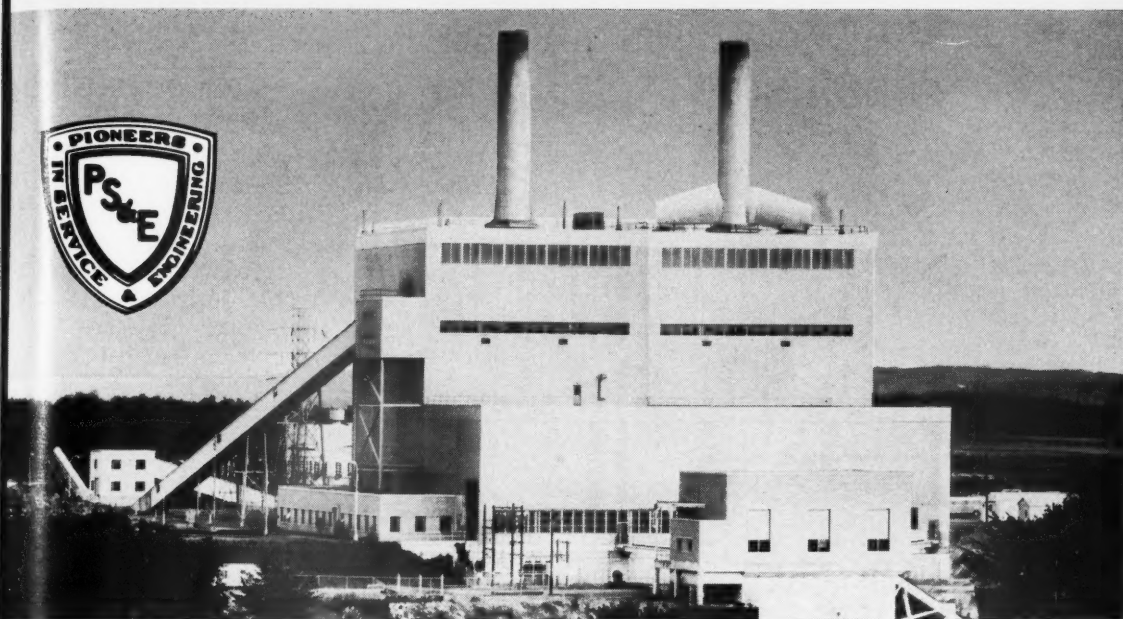
EVEN more significant is the subtle divergence of Russian-Chinese relations. To be sure, no open rift has occurred between these two Communist countries, but there have been a few signs that somewhat less than 100 per cent accord exists. Khrushchev received a cool reception when he visited China and in an international dispute involving China, Russia has taken a neutral position rather than the traditional wholehearted support of each and every move of the People's Republic.

IF the present trend continues, 1960 could easily see the development of the best relations between Russia and the United States that have existed since we stood as common comrades in arms during World War II. But do not make a book on it. We have "zigged" before, just prior to a Kremlin "zag."

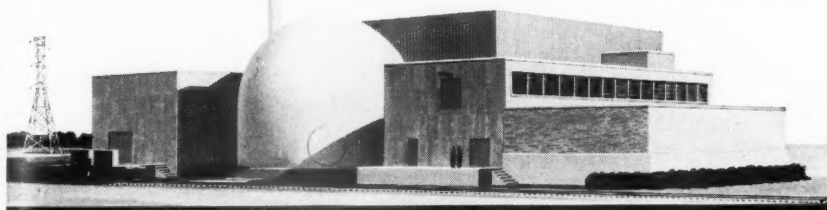
THE year 1959 will also be remembered as the year of the TV quiz scandals and the significance of these investigations will reach far into 1960. Will the mass communications media clear up this situation themselves, or will Congress feel that it must legislate to settle this question? Shades of the public utility holding company scandals of the thirties! They never got a chance for a voluntary clean-up. The TV investigations may also color future regulatory policies of the Federal Communications Commission and congressional investigations concerning the same. These matters all touch on the work of the federal regulatory bodies and will probably continue to do so, particularly in the coming year 1960.



FRANCIS X. WELCH



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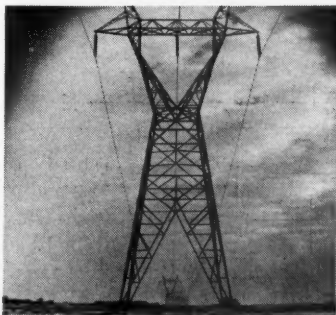
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PAGES WITH THE EDITORS (Continued)



JOHN J. HASSETT

THEN, too, the Senate Subcommittee on Administrative Practice and Procedure began, during 1959, an investigation of improper influence and the possibility of establishing an Office of Federal Administrative Practice. Both of these areas of investigation may have profound effects on the public utility industry in 1960.

THE year 1960 promises to see a whirlwind of political activity. One-third of the Senate will stand for election; the entire House will be up before the public; and last, and most important, America will pick a new President. At this moment the parties are drawing up their lines of fire and the individual presidential aspirants are jockeying to be in a favorable position when convention time rolls around. All in all, 1960 should prove to be quite a year.

“THE Outlook for Public Utilities—1960,” by the editor of *PUBLIC UTILITIES FORTNIGHTLY*, FRANCIS X. WELCH, presents a forecast of coming events in Congress and the regulatory agencies. Comparatively speaking, he did not do badly (90 per cent) on his record of predictions for 1959 (see page 3), although he did better in 1958. But the coming year—as we shall be continually reminded from now until next November—will be a critical presidential election year in which politico-economic sensitivity will be so pronounced that any attempt to sound Washington will be like tapping a bowl of gelatin. Anyhow, MR. WELCH has ten

more predictions for us coming up in the opening article in this issue.

* * * *

PETER JAFFRAY is the author of our second feature, entitled “Pitfalls to Avoid in Canadian Utility Regulation.” MR. JAFFRAY was born into a prominent Canadian banking family and was educated at Ridley College in Ontario. He joined Dominion Securities Corp., Limited in 1938 and became a partner in 1954. In 1956 he was elected a director of the board of Dominion Securities. This article, in substance, is a restatement of an address given by MR. JAFFRAY to a rather exclusive group in Victoria, British Columbia, last summer—the accounting section of the Canadian Gas Association.

* * * *

IN the prevailing mood of forecasts and predictions for the New Year, “The Utilities’ Crystal Gazers” is an unusual article dealing with the long-term forecasts which must be made by the public utility industry in order to project increased loads, expansion, etc. JOHN J. HASSETT, of Washington, D. C., the author, was formerly on the editorial staff of *PUBLIC UTILITIES FORTNIGHTLY*. Since his departure to other editorial fields, he has been active in the public relations field in Washington and in New York city.

MR. HASSETT has not only seen service on the staff of the public information department of the American Gas Association, but has also been Washington director of public relations for the Structural Clay Products Institute. He is a native of Washington, D. C., and is a graduate of Georgetown University. MR. HASSETT is presently director of publicity and public relations for the National Association of Plumbing Contractors. But his incorrigible interest in public utility matters led him back like the proverbial visiting postman to the Post Office, and we are glad it did.

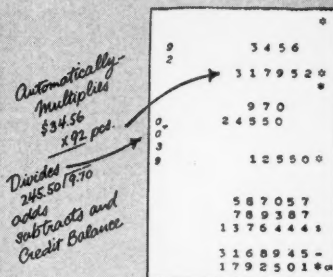
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The Editors

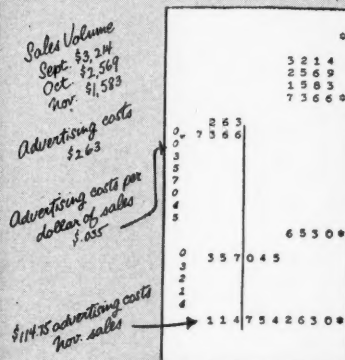
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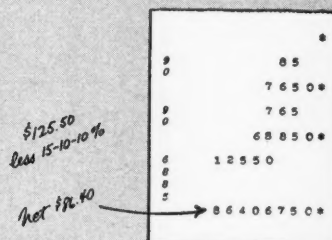
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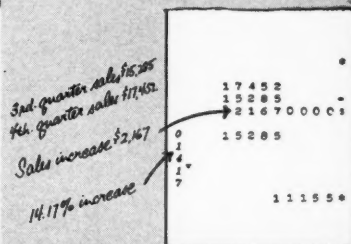
Prorations of expenses, profits, etc.



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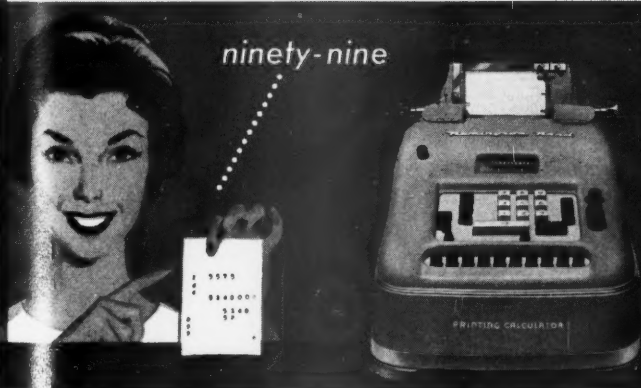


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8 PUBLIC UTILITIES FORTNIGHTLY—JANUARY 7, 1960

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(January 21, 1960, issue)



WANTED—A NEW ERA IN PERSONNEL MANAGEMENT

Is there something wrong with personnel management? It is a fact that many of the nation's 63 million employees are on the payrolls of substantial companies having well-organized personnel departments. About one-third of these employees work for 3,200 companies which employ more than a thousand people each. Why then do we hear disturbing questions about employee loyalty? Kimball I. Jack, vice president of the Washington Water Power Company, digs into this problem with special reference to employees of public utility companies. He comes up with some encouraging conclusions about what can be done to develop the feeling of teamwork and co-operation within the working force through better personnel management practices.

A MARKETING PHILOSOPHY FOR PUBLIC UTILITIES

Every function and operation of a utility company should start rather than end with the customer. Such is the philosophy of marketing, according to O. E. Zwanzig, who has written a persuasive article about putting it into practice among utilities. Instead of designing a plant and then expecting sales to sell its output, the utility which adopts and lives the marketing philosophy will first ascertain what the customers want and when. The impact is obvious, not only on plant planning and construction but also on pricing and rate forms.

THE OUTLOOK FOR TELEPHONE EXPANSION IN THE SIXTIES

What are the factors which will govern the growth of telephone operating companies and other commercial communications companies, including the manufacturers and producers of communication equipment in the decade which lies ahead? Alexander J. Falk, director, communications industries division, Business and Defense Services Administration, has made a survey based on statistical previews which gives an interesting outlook on what the telephone industry as a whole may expect during the "sizzling sixties," in an exclusive interview with Herbert Bratter, financial writer and author of business articles of Washington, D. C. Mr. Bratter outlines the pattern of growth and the reasons behind it.



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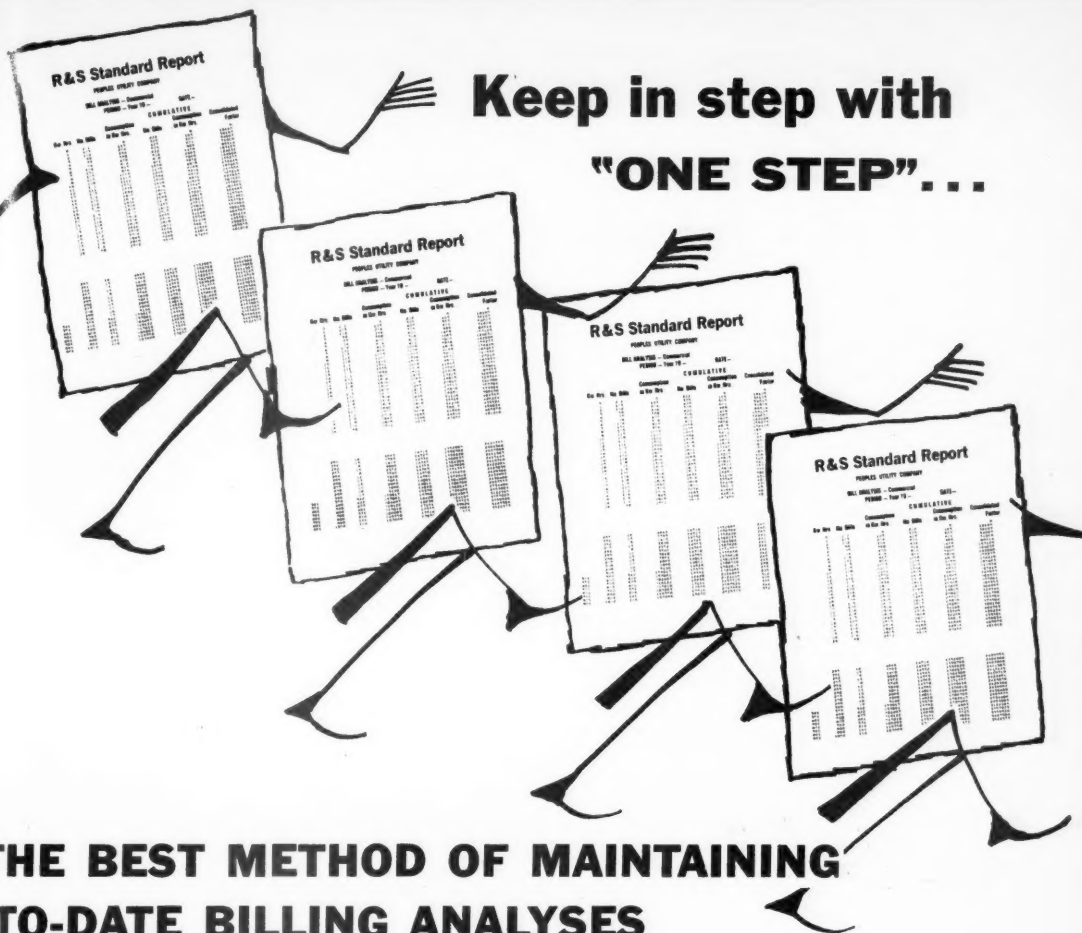
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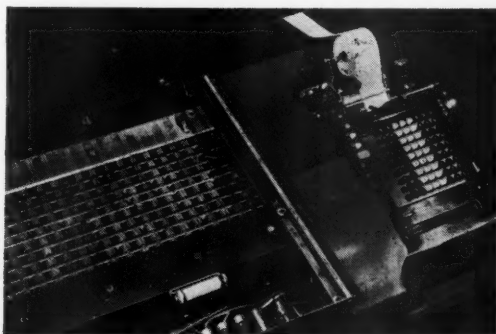
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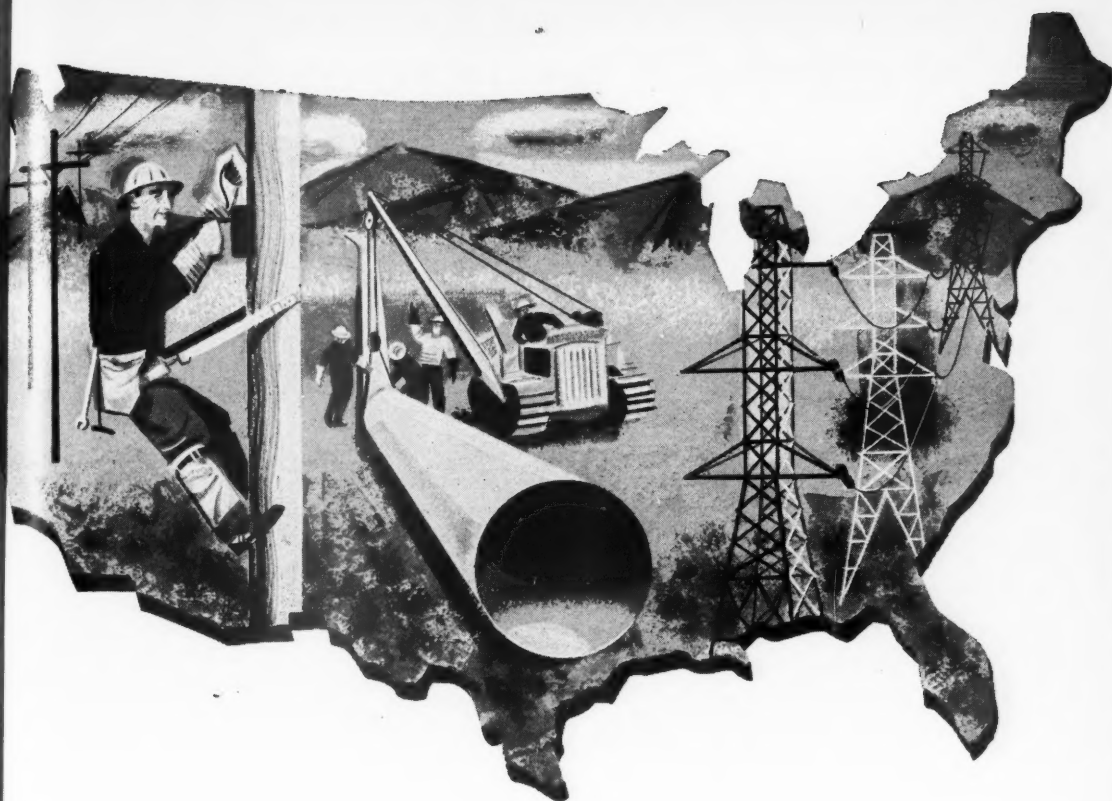
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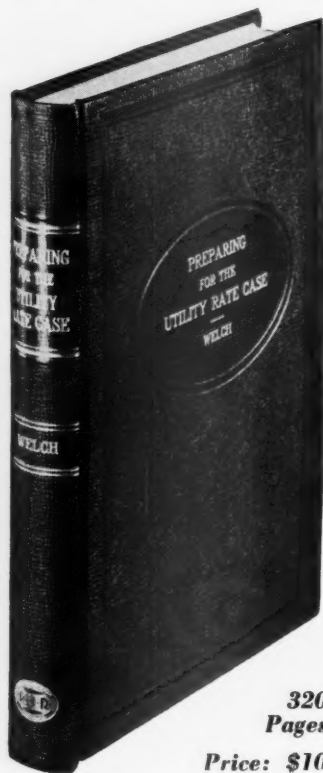
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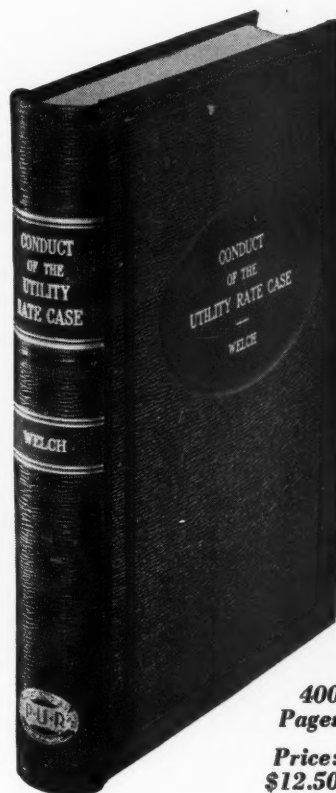
- ▶ filing the application
- ▶ introducing the evidence
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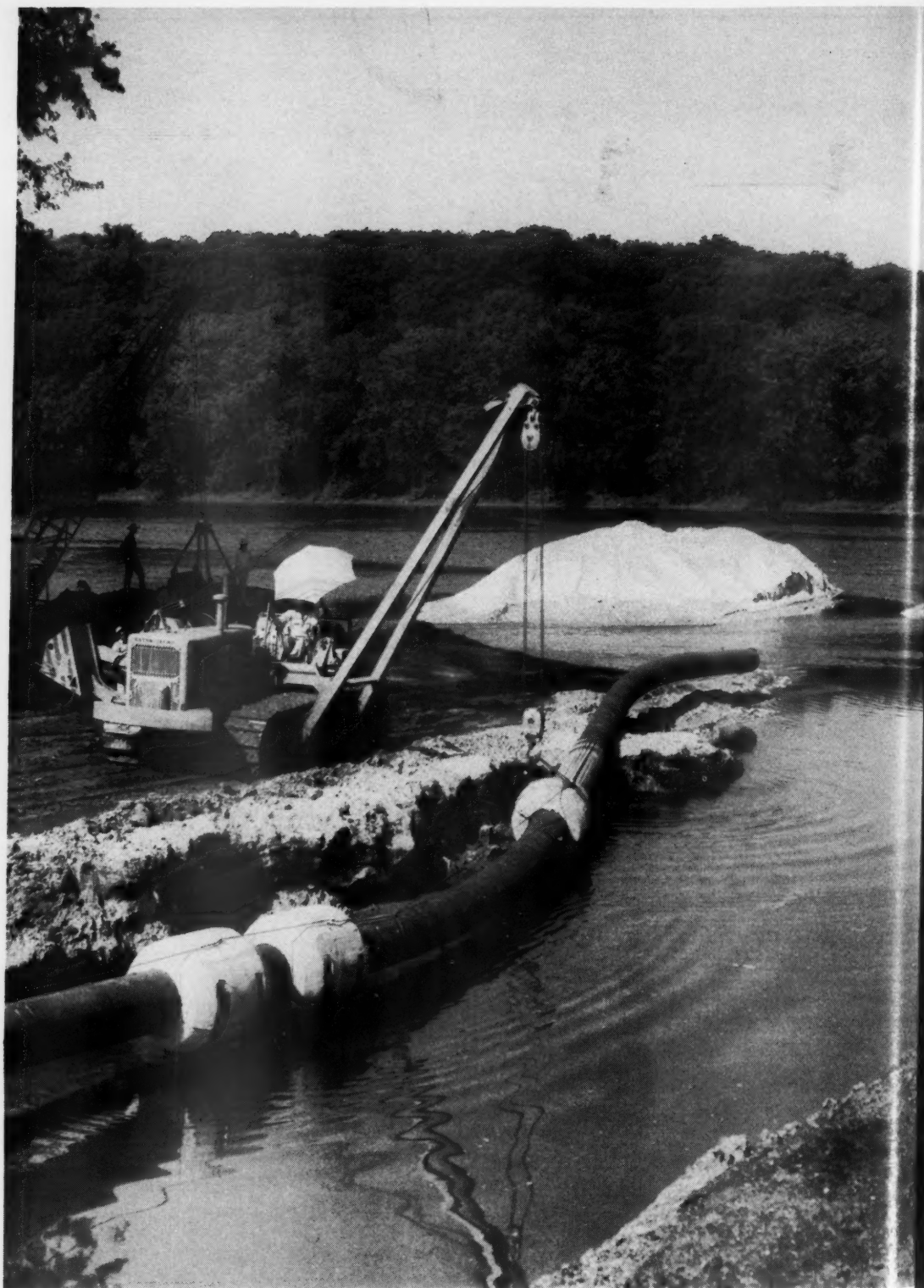
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UTILITIES

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JANUARY

Thursday—7 <i>Hydraulic Institute will be held, Hot Springs, Va. Jan. 25-27. Advance notice.</i>	Friday—8 <i>Southern Gas Association, Sales Section, begins round-table conference, El Paso, Tex.</i>	Saturday—9 <i>Canadian Electrical Association, Eastern Zone, will hold meeting, Quebec, Canada. Jan. 25-28. Advance notice.</i>	Sunday—10 <i>National Retail Merchants Association will hold annual convention, New York, N. Y.</i>
Monday—11 <i>Pennsylvania Electric Association, Structures and Hydraulics and Transmission and Distribution committees, will hold meeting, Pittsburgh, Pa. Jan. 28, 29. Advance notice.</i>	Tuesday—12 <i>Society of Plastics Engineers begins annual technical conference, Chicago, Ill.</i>	Wednesday—13 <i>National Association of Purchasing Agents, Public Utility Buyers Group, will hold midwinter meeting, Atlanta, Ga. Jan. 31-Feb. 2. Advance notice.</i> 	Thursday—14 <i>American Institute of Electrical Engineers will hold winter meeting, New York, N. Y. Jan. 31-Feb. 5. Advance notice.</i>
Friday—15 <i>Southern Gas Association begins employee relations conference, Shreveport, La.</i>	Saturday—16 <i>American Society of Heating, Refrigerating, and Air Conditioning Engineers will hold semiannual meeting, Dallas, Tex. Feb. 1-4. Advance notice.</i>	Sunday—17 <i>Instrument Society of America will hold conference and exhibit, Houston, Tex. Feb. 1-4. Advance notice.</i>	Monday—18 <i>Industrial Heating Equipment Association begins meeting, Philadelphia, Pa.</i>
Tuesday—19 <i>National Industrial Electric Meeting Conference will be held, Cincinnati, Ohio. Feb. 1-4. Advance notice.</i>	Wednesday—20 <i>New England Gas Association, Operating Division, begins meeting, Boston, Mass.</i>	Thursday—21 <i>Edison Electric Institute, Transmission and Distribution Committee, begins meeting, St. Petersburg, Fla.</i> 	Friday—22 <i>National Association of Corrosion Engineers begins annual corrosion control short course, Houston, Tex.</i>



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Public Utilities

FORTNIGHTLY

VOLUME 65

JANUARY 7, 1960

NUMBER 1



The Outlook for Public Utilities—1960

The year ahead will be a presidential election year, dominated by a politically sensitive climate affecting government-business relations. With a background of possible policy conflict thus set forth, what will be the consequences of new developments in Congress and among the federal agencies respecting various utility industries during 1960?

By FRANCIS X. WELCH*

THE year 1959 will long be remembered in federal regulatory annals because of the outstanding work performed by the House Legislative Oversight Subcommittee investigating regulatory procedures. And inasmuch as the subcommittee has by no means concluded its operations, the additional disclosures of the problems and shortcomings in this area can be expected throughout most of the still New Year of 1960.

*Editor, PUBLIC UTILITIES FORTNIGHTLY.

The revelations so far have been centered for the most part on the work of the Federal Communications Commission. And it may be that the pattern of FCC problems uncovered by the House group, headed by Representative Harris, Democrat of Arkansas, will not be followed up so extensively for the other members of the so-called "big six." Indeed, it is likely that much of the subcommittee's attention in future hearings will continue to focus on the FCC in the year ahead.

PUBLIC UTILITIES FORTNIGHTLY

But enough has been disclosed to establish a certain community of interest in proposals made for correcting regulatory shortcomings in federal commission procedures generally. It is necessary to make a distinction here, of course, between those revelations which dealt with matters peculiar to the jurisdiction of the FCC and those applicable in some degree to the other federal commissions as well. In the first group, there was the sensational rigged quiz program scandal on television and the disclosure of so-called "payola" for influencing the content of TV and radio programs by indirect gifts if not outright bribes.

NONE of the other federal commissions—with the possible exception of the Federal Trade Commission, already investigating possible unfair trade practice angles and TV and radio commercial program irregularities—have in their respective charge parallel commercial activities which could be similarly abused. It is hard to conceive, for example, of any "rigging" or "payola" in connection with routine regulation of railroads by the Interstate Commerce Commission, or of the gas and electric companies by the Federal Power Commission, or of the commercial airlines by the Civil Aeronautics Board, and so forth. The very fact that the subcommittee's investigation of the FCC has dealt entirely with its TV and radio broadcasting operations, as distinguished from its jurisdiction over telephone and telegraph companies, lends weight to this distinction.

But in the other category of problems which affect the other commissions as well, we already have important bills be-

fore Congress. In the House there is the subcommittee's own bill (HR 4800) which would radically overhaul the operations of the FCC in a way which some federal regulators, as well as practitioners, feel would injure the elasticity of commission regulation through the imposition of legalistic or courtroom procedures. For this reason, Chairman Harris agreed to introduce the more elastic bill (HR 6774) endorsed by the American Bar Association, which would be confined to the avoidance of improper conduct and contact in regulatory proceedings.

ON the Senate side two bills have also been considered by the Subcommittee on Administrative Practice and Procedure, headed by Senator Carroll (Democrat, Colorado). One is S 2374, introduced by Carroll at the request of the American Bar Association, which would make it a crime to attempt to influence commissioners or hearing examiners. The other is a more extensive bill (S 600) sponsored by Senators Hennings (Democrat, Missouri) and Hart (Democrat, Michigan) which would set up an Office of Federal Administrative Practice.

Before speculating on the future of such legislation, it is also necessary, by way of background, to recall the stir created last September by the resignation of Louis J. Hector from the CAB. Hector accompanied his resignation with a long memorandum to President Eisenhower stating that the CAB is doing too much unnecessary regulating of industry and should spend more time on long-range thinking, leaving details for management.

THE OUTLOOK FOR PUBLIC UTILITIES—1960

Approximately 90 Per Cent Correct in 1959

(Here reproduced is the exact text of predictions made in the annual "Outlook" article for 1959, with only minor omissions for brevity.)

1. *TVA self-financing bill.* In the new Congress a bill to permit TVA to finance its own expansion by issuing its own securities will be passed and it will become law. The administration, as the price for the President's signature on such a bill, may obtain some concessions in the form of restrictions set by the Comptroller General. . . . *Right.*
2. *No gas producer exemption law.* The independent natural gas producers are doubtless still hopeful that Congress will one day re-enact some version of the twice-vetoed producer exemption bill. But the outlook for such a law to relieve producers from the full jurisdiction of the Federal Power Commission under the Natural Gas Act is probably worse than at any time within the past decade. *Right.*
3. *Other gas legislation.* The recent U. S. Supreme Court decision upholding the FPC in the so-called Memphis case relieves Congress of any need for clarifying the rate increase provision of the Natural Gas Act (§ 4), but it may also result in new bills (with little chance of success) to require pipeline companies to get advance consent of customers to file rate increases even under service-type contracts. . . . *Right.*
4. *No change in REA law—or size of appropriations.* The administration will try to taper off REA appropriations for new loans and to increase the interest rate. But Congress will keep REA spending in the manner to which it has been accustomed during recent years, and will otherwise not change the law. On the other hand, a bold attempt of the REA co-op lobby to make REA independent of the Secretary of Agriculture will not succeed. *Right.*
5. *A hard battle for a Columbia Valley Authority.* The administration, particularly the Comptroller General, is opposed to the unlimited use of the federal corporation device, which would result in a virtual regional autonomy. A dingdong battle will be waged, probably without a final decision in 1959. . . . *Right, but there was not much of a battle.*
6. *AEC atomic plant building.* The public power lobby will be out in full force during the coming year to write more legislation compelling AEC to build atomic power plants. The AEC will probably be first to yield to some extent before the heavy Democratic majority in the next Congress. *Half right. There were some concessions made, but less than earlier expected.*
7. *Rate regulation at the state level.* Just as there were more rate cases in 1958 than in 1957, a continued increase in the number of cases before the state commissions can be expected for 1959. Furthermore, with inflation likely to continue, there will be more agitation for revision of rate base and rate of return procedures. However, state legislation in this area will not be very productive despite the fact that 45 out of 49 state legislatures will be meeting in regular session. . . . *Right.*
8. *Legislation affecting telephone companies.* The perennial attempt to cut down or cut out the federal telephone excise taxes will be no more successful this year than before. On the other hand, we see difficulties in the path of the joint federal-state proposal to turn over a part of federal excise tax collections to the states in return for their acceptance of certain welfare responsibilities. The minimum wage will probably be increased from \$1 to \$1.25 and the exemption in the present Fair Labor Standards Act for operators at small telephone exchanges may be wiped out—although final action on such measures may not be completed in 1959. . . . *Half right. The \$1.25 minimum and the small exchange wage exemption changes were blocked by adjournment. Action in 1960 still possible.*
9. *Telephone cases before the FCC.* The FCC will probably uphold its examiners' decision approving the Bell system acquisition of independent company properties in Wisconsin. Two other major telephone cases before the FCC are now given less than 50 per cent chance of success: (1) Bell system's effort to file tariffs to cover lease-maintenance mobile telephone service on a regulatory basis, (2) the industry's effort to get more microwave frequencies. The Bell system's 1956 consent decree ending the Western Electric antitrust suit may get more critical attention from a House Judiciary subcommittee. *Right in every detail.*
10. *Legislative Oversight Subcommittee.* The House subcommittee investigating improper influence on the federal commissions will make a critical report early next year and will continue in the business of checking up on the commissions. But the efforts to obtain procedural reforms by legislation are likely to get fouled up in congressional controversy. *So right!*

PUBLIC UTILITIES FORTNIGHTLY

Since Hector was a sitting commissioner, his sweeping proposal virtually to abolish commission regulation as such by tearing it up into three pieces and handing the pieces out to other government agencies, had a considerable impact.

Now we come to the first and most important prediction of a Washington development for 1960. What will Congress do about all this, if anything?

1. *A slow start on procedural reforms.* Fortunately, the House subcommittee is pretty well under control of its chairman, Representative Harris, who has shown considerable restraint in handling the controversial disclosures of his committee's investigations. This observer does not think that Harris will let Congress act hastily on radical proposals, either to sweep away the federal commissions or seriously cripple them through legalistic restrictions. But Harris does have to show some legislative results from his group's investigating efforts. So the prediction is made that some strictly procedural changes, such as banning ex parte contacts and imposing more ethical standards of conduct on the regulatory commissioners, may be enacted. But more far-reaching recommendations and proposals will not be enacted in 1960, if at all. Harris will probably swing his influence towards keeping these longer-range basic problems for more deliberate consideration than can be given during the politically heated climate of a presidential election year.

This is most important to all utility groups, not only at the federal but also at the state level. For if Congress were to enact anything like Mr. Hector's proposals, it would involve a tremendous

loss of prestige for commission regulation. It would inevitably be followed by agitation for parallel reorganization or abolition of state regulatory commissions. It is hard to believe that Mr. Hector had such far-reaching effects in mind when he made his criticisms last September to President Eisenhower.

THE past history of these periodical outbreaks of controversy over the work of the regulatory commissions has always been that there resulted reforms strengthening, not weakening, the commissions as such. More regulation rather than less has followed in the wake of criticisms that the commissions were not doing enough. There is no reason to believe that the present fussing in Washington about the work of the federal commissions will lead to any different consequences.

There will, of course, be a great deal of talk before the wind blows over. Right now the area of controversy has centered so definitely in the television and radio communications field that strictly procedural problems of the federal commissions are not in the limelight. But the limelight will switch back and forth a number of times during the year.

2. *Fewer rate cases in 1960.* For the first time in the last decade this writer is constrained to predict a lessening in the total volume of all kinds of utility rate cases at both the federal and state levels. This may only be a temporary phenomenon, owing to the fact that the developments in the large number of telephone and transit rate increase cases seem to be catching up somewhat on the inflationary lag. Transit companies for the

THE OUTLOOK FOR PUBLIC UTILITIES—1960

most part have either reached the point of diminishing return in their fare increase requests or have considered alternative measures of relief, such as tax subsidy or selling out in favor of public ownership.

The telephone companies, while not satisfied with their return in many cases, are encountering increasing regulatory resistance. They will try to "make do" without too many new cases in 1960.

But we should also note that the gas rate cases are still increasing and the electric companies—last of the major utility group to get actively in the march of rate cases—are now coming into the picture, under pressure of continued inflation.

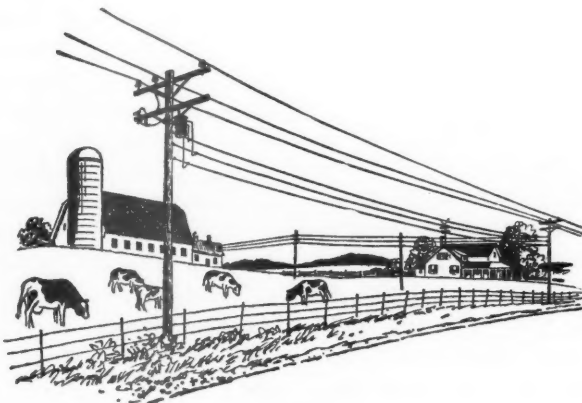
And so it could be that the diminishing number of total rate cases for the year 1960 will not last beyond the year. Much depends on the relative march of inflation. If the inflationary pace picks up sharply, the telephone companies and all the rest will have to start another round of rate cases after 1960.

3. *Not much change in REA policy or loan volume.* Last year anti-Benson forces in Congress succeeded in having a

bill passed which would have taken fiscal control over the Rural Electrification Administration away from the controversial Secretary of Agriculture. It failed by a narrow margin to override a presidential veto. From the opposite direction, President Eisenhower asked Congress to raise the REA interest rate from its present subnormal and obviously subsidized rate of 2 per cent per annum on loans of thirty-five years' duration. It also failed.

THE prediction is made that there will be a fresh outcry in the next Congress over REA controls by administration appointees—but again no legislation. The object will be largely political and based on the hazardous supposition of the congressional majority, that "booting Benson" is good politics in the farm states. The administration will make another request for an increase in the interest rate. This, too, will fail.

As for loan funds REA will continue in the grand manner to which it has become accustomed. For the present (1960) fiscal year it received \$136 million for rural electrification, \$79 million for telephone, and \$25 million for a contingency



PUBLIC UTILITIES FORTNIGHTLY

fund to be used at the discretion of the Secretary. The prediction is made that the REA should do at least that well for the fiscal year 1961 which must be approved by next July 1st. It may do better. Both Democrats and Republicans like to be on the bragging side of doing things for the politically popular REA in an election year.

4. *New starts in 1960.* The administration will agree to back down on its so-called "no new starts" policy on reclamation projects during the next fiscal year. It will be a forced concession anyhow, since the Democrats overrode President Eisenhower's appropriation veto at the last session. This happened when Congress passed a public works bill including "starting" funds for the Trinity power project in California (\$2.4 million); Burns Creek in Idaho (\$500,000); and certain western Iowa transmission facilities (\$780,000).

The Eisenhower administration will ask Congress to approve "new starts" on several reclamation projects in the new fiscal year beginning next July 1st. Secretary of Interior Seaton has said his department feels the government now is in a position to start some additional projects. He did not say how many new starts would be recommended in the new budget. The Secretary did not consider his statement a reversal of the administration's controversial "no new starts" policy which has been a principal feature of the past two federal budgets. "We have said all along that we needed a breathing spell in reclamation spending and we have had one," Seaton said. "Although the breathing spell was not as long

as we would have liked we now are in a position to start additional new projects."

Seaton said there has "never been a disagreement" between the administration and the Democratic-controlled Congress over the need for more water projects, but only a difference as to timing. In a related development, Seaton revealed that he had written Senator Moss (Democrat, Utah) criticizing the Senator for allegedly saying that no new power starts have been undertaken in the Pacific Northwest since 1952. The Secretary said seven new federal power projects, six nonfederal publicly owned projects, and five privately owned projects have been commenced in the past six years.

5. *No FPC gas producer exemption.* The so-called Harris Bill to exempt gas producers from full FPC control will be just as dead in 1960 as it was in 1959 when it failed to stir in either house. It is hard to see now when such legislation ever will have a chance again. The political liability attached to promotion of this kind of a bill has been increasing ever since the veto debacle of 1954.

There are a number of other procedural amendments to the Natural Gas Act (as well as the Federal Power Act) introduced by Senator Magnuson at the request of the FPC. Magnuson is chairman of the Senate Interstate Commerce Committee. The prediction is made that they will not stir either, because 1960 is simply not the year for that sort of thing.

Eventually Congress may have to come to grips with the fundamental problem of breaking some bottlenecks to relieve the FPC producer case load, unless the FPC is luckier than it has been in the past in getting court approval of its

THE OUTLOOK FOR PUBLIC UTILITIES—1960

Predictions of Events for 1960

(Here is a summary of the things likely to occur in Washington of special concern to the public utility industry.)

1. *Slow start on procedural reforms.* Congress will move slowly in the broad area of controversy over commission regulation stirred up by the House Legislative Oversight investigation. Some strictly procedural changes, such as banning ex parte contacts and other questionable practices may get through, but basic reorganization of the commissions as such will continue as a conversation piece beyond 1960.
2. *Fewer rate cases in 1960.* This will result from a temporary lag in the large number of telephone and transit rate cases which have swelled the increasing total in recent years. But gas and electric rate cases are now belatedly increasing in number. Whether inflation can be relatively kept in line will determine the resumption of overall rate case volume.
3. *Not much change in REA policy or loan volume.* The administration will continue to ask for higher interest rates and the Democratic Congress will continue to say no. For political reasons, both will continue to agree on giving REA as much to spend on rural electric and telephone loans for the fiscal year 1961 as during the current fiscal year.
4. *"New starts" in 1960.* The administration will agree to back down on its so-called "no new starts" policy on reclamation projects during the next fiscal year. It will be a forced concession anyhow, since the Democrats overrode President Eisenhower's appropriation veto at the last session. Besides, there is the matter of campaign politics in a number of critical states.
5. *No gas producer legislation.* Although perennial bills to relieve gas producers from FPC control are still before Congress, they are hopelessly frozen. While Congress eventually will have to consider some kind of legislation to break bottlenecks in the FPC rate case load, it is safe to say that it won't happen in 1960.
6. *FPC gas regulation.* Illuminating FPC and court decisions during the year should assist in the piecemeal approach towards a more practical routine for FPC handling of producer rate cases. With the backlog still swelling, such pioneering cases as the Union Oil settlement and the Consolidated Edison case upholding boiler fuel gas usage will move towards final adjudication. Too, the FPC may come up with one or more short cuts for court inspection in its effort to chop a road through the present morass.
7. *No new self-financing authorities.* The public ownership bloc will make a publicity play on Senator Neuberger's Bonneville corporation proposal for self-financing à la TVA. But the impression persists that the Democrats would rather talk about it than do anything about it for 1960.
8. *Public utilities as a campaign issue.* Regardless of who the Democratic presidential nominee may be, the party platform management has already been infiltrated by the public ownership bloc. In default of other issues, a stout platform plank for more government power expansion in this area seems inescapable. The Republicans would prefer other things to talk about.
9. *Tax changes.* No chance for any reduction in personal or corporate income taxes, nor any other far-reaching tax changes, despite the recent activity of the House Ways and Means Committee. This includes the gas-oil depletion rate and telephone-telegraph-transportation excises at 10 per cent.
10. *Advertising expenditures.* Nothing will be done except talk in 1960, but a long-range storm is brewing over recent regulatory and tax restrictions on utility advertising as business expenses which are of a so-called political or lobbying nature. The brewers will be publishers and other commercial advertising interests, who now see the government's camel nose under their own business tents.

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own bottleneck breaking attempts. But, again, it won't happen in 1960.

6. *FPC gas regulation.* Speaking of bottleneck breaking, the recent effort before the FPC to approve gas rate increases on a settlement basis between gas producers and pipelines could easily become a landmark case. This would be the Union Oil Company offer of settlement which the FPC was slated to decide by December 25th. If this settlement offer of 15 cents per thousand cubic feet (plus further definite escalation), mainly based on area price consideration, gains FPC and court approval, the door will be opened to great possibilities of similar short cuts in other important cases.

Already the Phillips Petroleum decision by an FPC examiner, using a system-wide cost basis for rate making, is moving up through the FPC to court testing. And the commission seems to be experimenting with another minor short cut by raising the ante in so-called "de minimis" cases, whereby small amount increases are allowed to go through. Then there is the recent U. S. circuit court decision in the Consolidated Edison case, upholding the use of gas for boiler fuel—due to get its final court testing in 1960. This would end a lot of coal industry interference in such cases.

So, it is a fair prediction that FPC will make some progress on its own effort to chop a road through the present morass of bogged down gas regulation. If the courts do not throw any more roadblocks in the way—such as happened in the Catco and Transco cases (now back before the FPC for further certificate-plus-rate hearings)—the FPC may actually make headway in 1960 in whipping some of its

most stubborn problems in the area of gas regulation.

7. *No new self-financing authorities.* The public ownership bloc will make a publicity play on Senator Neuberger's Bonneville corporation proposal for self-financing à la TVA. But the impression persists that the Democrats would rather talk about it than do anything about it for 1960.

8. *Public utilities as a campaign issue.* Regardless of who the Democratic presidential nominee may be, the public utility industries, especially the electric companies, will be the subject of campaign oratory, at least in some localities.

A foretaste of what the so-called "public power bloc" people in Congress were up to was seen in the revival late in the last session of Congress when the radical Trimble Bill (HR 8) was brought before the House Public Works Committee. Actually, the bill, which goes by the title of "Water Conservation Act of 1959," is so far-reaching that there is virtually no chance of final action in the Congress in 1960, considering the almost certain veto even if it managed to pass both houses. Sponsor of the bill is Representative Trimble (Democrat, Arkansas). Since this bill has lain dormant from its introduction during the early days of the session, there is reason to believe that this sudden activity was for purposes of political strategy rather than serious expectation of legislation.

The strategy of bringing this far-reaching bill up at the eleventh hour of an overlong session when it had no chance to pass was what is euphemistically called in political circles, "educational progress."

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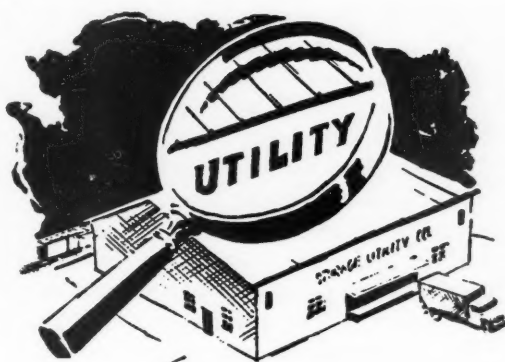
During 1960 the House Public Works Committee may use this bill for brief on-and-off hearings for an indefinite period to test public reaction. The impression continues to grow that this activity is part of a "platform package" which the bloc is building up to sell to the Democratic leadership in Los Angeles next July.

The northern or "liberal" element of the party will be well represented on the platform committee. With the Republicans holding a monopoly on "peace and prosperity," what else is there for the opposition to talk about? Even Ike's golf will be missing from the coming campaign without Ike on the ticket.

RIGHTLY or wrongly, that segment of the Democratic party represented by Harry Truman, Estes Kefauver, Hubert Humphrey, the battling Oregonians, Morse and Neuberger, and similarly minded left-of-center personalities, has always been convinced that there were votes to be had in crying for more "public power." It has worked in the past, they say, so it ought to work once more, especially in default of much else to talk about.

In broader aspect, this observer can see quite a pattern of antibusiness—at least anti-Big Business—shaping up on the political left.

Note how the recent investigations in Washington have turned the spotlight on truth in business advertisements, on profits in the drug business, on misdeeds in big television and radio broadcasting business. If that is the kind of a record the "liberal" wing of the Democratic party hopes to be playing all next summer, in hopes of a "payola" from the voters next fall, it will be hard to keep the utility companies out of the music. The plain



answer is they will not be out of it. They can expect to hear the electric utility industry, and perhaps some of the others, called often and critically by some of the "liberal" campaign orators. What will actually come of this, if anything, will depend on the big pay off on November 8, 1960. The winner in that contest—our next President, whoever he may be—will probably be calling the shots from then on. There is nothing the utilities can do about this except face the music, set the record straight when necessary, and wait it out. This, too, will pass. It always has.

9. No major tax changes. Last June, Congress passed and the President signed a bill to extend Korean War excise taxes on automobiles, liquor, etc. Among the provisions of the new law was an important moral victory for the telephone and telegraph industries. It established June 30, 1960, as the date on which the telephone-telegraph excise taxes will expire. Next June, Congress will probably pass another bill extending the excise taxes. Reason is that Uncle Sam cannot afford to do without them—not in fiscal 1961. The telephone-telegraph industries

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will still have their moral victory in the form of an automatic expiration whenever Congress will see fit to ring down the curtain on this tax gold mine.

With a skyscraping public debt requiring a statutory ceiling raising almost every year, personal income taxes will not be cut in 1960, much as Congress would like to do so for the politically popular reaction which would ensue. And if personal income taxes cannot be lowered, certainly the corporation tax will not be changed. What then will Congress do about all the changes which have been considered at recent hearings of the House Ways and Means Committee? The answer seems to be mighty little.

THERE were interesting changes suggested all right. There was the perennial proposal to eliminate the 27½ per cent depletion allowance on oil and gas well production. This will not be done while those two doughty Texas statesmen, Senator Lyndon Johnson and Speaker Sam Rayburn, are running the Senate and House affairs, respectively. What about federal tax exemption on state and local bonds? A lot of fine talk about how much the Treasury would save. State and local governments will say such a tax would be unconstitutional and a majority of Congress will not care to argue the point. No action.

Any kind of a tax bill at all? Probably some sort of lint-picking measure, purporting to plug a few loopholes, will get approval. Maybe it won't. But all the recent demands for a "wholesale revision"

and "recasting" of our "obsolete" and "crazy-quilt" Internal Revenue Act will simmer down to very little when the primary and convention excitement really takes hold next spring.

10. *Advertising expenditures.* Here is an interesting long shot to think about during the coming year—the possibility that a start may be made towards doing something about those advertising restrictions on public utilities, particularly electric utilities. This writer does not look for action in 1960, but he does look for plenty of agitation from a new quarter—the newspaper publishers.

The Internal Revenue Service and the FPC have both been criticized for rulings as to electric utility advertising as business expenses—for taxes and regulatory purposes, respectively. Last month the general counsel for the American Newspaper Publishers Association attacked the tax rulings before the House Ways and Means Committee. Subsequently, a member of the House Government Operations Committee, Representative Brooks (Democrat, Louisiana) denounced both IRS and FPC rulings as threats to press freedom.

WHAT could be done about this? Well, probably Congress would have to pass a law changing the Revenue Act and another one for the FPC. Congress will do neither in 1960. But over the longer range, it is a fair gamble that if the publishers keep up their complaint, Congress will be more disposed to listen to them than to the utility companies.

Pitfalls to Avoid in Canadian Utility Regulation

Regulation that ultimately best serves the interest of the public allows a utility a chance to earn an attractive return on its investment. Companies with sound financial structures and good earnings records find it cheaper to obtain money for expansion and to institute money-saving facilities as needed. Almost invariably such companies are able and do charge lower rates to their customers.

By PETER JAFFRAY*



It might be desirable first of all to consider the objective of regulation. Although an oversimplification, it might be stated that regulatory bodies endeavor to require that public utilities render service, at reasonable and nondiscriminatory prices, to all who apply for such service. This might be considered to aim primarily at rates charged to consumers. Any regulatory body, however, should consider, in

addition to the customer, the economic well-being of the company, which, of course, includes remuneration of its employees, the physical condition of plant and equipment, and a sound, satisfactory, and *attractive* return to investors.

In considering rate regulation for any utility it is obviously difficult to find an ideal. In fact when you consider the varied types of regulation that exist on this continent alone, you begin to wonder whether there really is any answer that gives an ideal pattern.

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However, perhaps this country, Canada, has a golden opportunity to learn from others and, by studying methods which others have used, has an opportunity to formulate a common sense approach to gas utility regulation that will, in the long run, serve the consumer best of all.

To me the aim of all regulatory bodies, or proposed regulatory acts, today should be a return to the fundamentals which originated regulation and to a simplification of regulation. In the maze of the forest I fear many have become unable to see the trees. This country now has a chance, before going too far along the road, to stand back and look at the total problem objectively. Perhaps looking at some of the problems through a layman's eyes may assist.

Although possibly radical it would seem desirable for regulatory bodies to help on a long-term basis of *earnings planning* and discard the concept of rate regulation. Earnings planning is positive and constructive, regulation can all too easily become negative and hampering, and even destructive.

Pitfalls in Rate Regulation

BEFORE dealing specifically with a number of regulatory factors, may I mention some items which, in my opinion, cannot be overlooked in considering rate regulation.

You will appreciate that being in the business that I am (that is the arranging of long-term financing for public utilities and industrial concerns of all types), what I have to say is influenced by the problems that I have encountered in the past in arranging financing for gas utilities and other similar companies. However, as

financing is an essential factor involved in the operation of any utility, perhaps there is good reason to look at the problem of regulation with at least one eye on financing ability.

One popular misconception which should be destroyed is that tight or severe regulation helps the consumer. Actually the reverse is the case in the long run. Let us trace through the results of rates to the consumer in the first instance being set at a very low level. Operating efficiency may well suffer, the utility will earn an insufficient amount for all categories of investors; serious difficulty may arise in finding new money. In other words artificially low rates to the consumer are nothing less than a form of strangulation, and in the long run the gas consumer will *have* to pay more. I cannot emphasize too strongly the necessity of regulatory bodies permitting public utilities everywhere to operate and finance as economically as possible. This, of course, requires a broad long-term point of view. It requires able men in charge of regulatory bodies.

ALTHOUGH not a popular concept I seriously suggest consideration of self-regulation. If a company voluntarily arranges its rates in such a manner as to provide sound economical service to the consumer and yet maintains a strong financial position, I recommend consideration be given to permitting the continuance of that operation without regulatory interference.

We have all seen attempts, particularly during the last war, to control rents, to control the price of milk, to control everything else. It is incredible, as so many of us remember, how in one way or another the dam would spring a leak. Of course,

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these holes were always plugged, but the fact is that the natural law of supply and demand has an all-inclusive and automatic regulating influence. Natural gas has definite *automatic* regulation in that competitive fuels tend to limit the price that can be charged for gas. It will be remembered how manufactured gas, before the advent in certain centers of natural gas, was gradually and continually losing customers due to the *automatic* effect of cheaper coal and fuel oil. This should not be overlooked by regulatory bodies.

Perhaps from a political point of view, and this to me is a very sad comment to have to make, it may be easier and advantageous for the management of a public utility to have a supervisory regulatory body. Regulation is not always bad and intelligently administered under a broad and well-thought-out act it can, from the public utility's point of view, serve as an umbrella against uninformed criticism because of the publicity given to rate-setting proceedings and impartial interest. Like it or not, the existence of a regulatory body is perhaps a recognition of the facts of life as it is today.

ANOTHER item is the importance of intangible factors. So frequently, in a burst of overenthusiasm, regulation is carried to the point of ignoring intangible factors. For example, the ability of a company to show steady and consistent growth is vitally important in arranging successful financing. It may be that from a regulatory point of view the ideal would be that a company never earn more per common share than a certain fixed dollar amount, but this does not meet an approving eye from the investor's point of view.

The psychological factor of progress, of growth, is an important one. I shall mention some other intangibles later.

An additional factor is the necessity of appreciating that in gas utilities there is still considerable business risk. A gas utility is, in the financial markets, competing for money against unregulated corporations and must provide, at least to an extent, certain of the attractive features, from the investor's point of view, that are available from unregulated companies.

Rate Base Regulation

IN considering rate base, the method of establishing what is a proper rate base seems to be far from universal. There are such methods as original cost rate base, historical cost rate base, current replacement cost rate base, fair value rate base, investment rate base, prudent investment rate base, and numerous others. I do not profess to be able to make any constructive suggestions as to what kind of a rate base your industry should strive for, but I do wish to mention certain of the pitfalls that are apparent to investors. A rate base that is, for all practical purposes, established by cost less depreciation results, from the investor's point of view, in a steadily declining return on capital invested unless the utility in question is able to expand at a rate faster than such rate base declines.

Carried to the extreme of course this means that eventually the rate of return would be calculated on a rate base of nothing. This may seem ludicrous but investors worry about such extremes. I have encountered this sort of thinking in consideration of securities of gas public utilities by sophisticated investors.

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I WOULD suggest that all regulatory bodies should give serious thought to formulating a rate base which would give consideration to certain facts of life that seem so far to be inescapable. For example, there is the matter of inflation and over the last hundred years the gradually shrinking value of the dollar. To compensate for this it would appear that the rate base might justifiably be calculated in some manner as to periodically increase or at least to bear some relationship to the current value of the dollar from time to time. I submit that rate base, and the formula used for establishing rate base, is of extreme importance and much excellent work might wisely be done in establishing a common sense and flexible approach to the rate base problem.

It seems to be that it is most proper, from a regulatory point of view, that some means of flexibility or adjustment be built into any rate base formula. Attempts along this line are the reproduction cost or fair value cost rate base approach, and to me they are steps in the right direction.

Rate of Return Regulation

IT would seem that the primary objective of the rate of return is to keep the cost of gas to the consumer as low as possible. Here I repeat that linked with this desire is the necessity of enabling the gas utility to operate in as economical a manner as possible and this includes the ability to finance soundly and reasonably. I have found it very hard to find why or from where some of the magical rates of return have come in the past. For years a figure of 6 per cent in the U. S. A. seemed to be a magical figure. In certain provinces of Canada a figure of $7\frac{1}{2}$ per cent has been seen periodically. To what have they been related? I do submit that in the settling of any rate of return it is vital that cost of financing be considered. Granted in years gone by, and I hope that they may return, it was normally possible for a top-quality gas or electric public utility to finance on the basis of a relatively low cost of money, but today, with very high interest rates

existing, it is ridiculous to ignore the cost of financing in the setting of rate of return.

This is especially true in the case of an expanding gas utility with consequent financing needs. The establishment of a proper rate of return must consider the relation of rate base to capitalization, and the composition of that capitalization. A reasonable rate of return should be recognized as that rate which suffices to *attract additional* capital on favorable terms. In fact, to define a reasonable rate of return in such manner tends to safeguard the long-run interests of the consumer as any policy that handicaps the attraction of capital ultimately increases the cost of service to the consumer and may well be the cause of reduction in quality and adequacy of service. Rate of return, in my opinion, should be high enough so that the gas public utility is enabled to finance economically, whether it be by way of debt securities or equity securities.

EXPERIENCE supports the belief that a reasonably generous treatment of rate base and rate of return accrues to the ultimate benefit of the consumer. Generally speaking, the state of Ohio in the U. S. A. is recognized as a liberal state in the regulation of utilities. Reproduction cost and

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high allowable rates of return prevail. The result to consumers is that rates are generally *lower* in Ohio than in neighboring states.

In an article in *Electrical World* of June 16, 1958, comparison was made of 102 power companies reporting to the Federal Power Commission in the U. S. A. The article concluded that liberal rate base jurisdictions with higher allowable rates

of return enabled their companies to offer service at rates lower than was the case in more restrictive regulatory areas. In fact, average monthly bills to the consumers were lower in liberal jurisdictions in each of the Federal Power Commission's four residential bill classifications.

Excessive and tight regulation nearly always ends up by costing the consumer more than would otherwise be the case.

I SHOULD like to raise the basis of calculating cost of money. Generally speaking, it is difficult to go very far afield in calculating the cost of money as far as bonds or debentures or preferred shares are concerned. It is in the matter of calculating cost of common stock money that I submit many errors have been made. I suggest that it should be realized that cost of common stock money should basically be related to the book value of such common stock and not to the market value. Failure to do this will cause dilution or, to put it bluntly, watering, in the value of any previously outstanding common stock when a subsequent issue of common stock is made. Watering is, as you know, as disliked by securities commissions as it is by the investor, and yet some public utility regulatory bodies seem almost to encourage this problem.

Accounting Regulation

RELATED to both rate base and rate of return are numerous details of accounting regulation. Here may I generalize rather broadly and advocate that any public utility accounting regulation should adhere closely to generally accepted accounting principles. The investor finds normal industrial accounting full of enough problems. To superimpose additional difficulties seems to me to add little from a regulation point of view and to detract considerably from the investor's point of view. In accounting matters the investor longs for simplicity and usualness. The complicated and unusual are always troublesome and may well be costly as far as financing is concerned. I strongly advocate simplicity to every extent possible. An example of undesirable regula-

tion is any complex, and perhaps artificial, depreciation formula. The segregation of depreciation reserves into minuscule components might be an example of unnecessary and perhaps misleading accounting regulations. Frequently, such regulation seems hardly to merit the test of common sense. This is equally true of many other accounting items. Flexibility and reasonableness should govern, not a rigid set of inflexible rules.

Instruments of Regulation

THE acts creating regulation are, of course, the foundation of all regulatory power. It is important that these acts should define the overall objectives and *not* just that rates to consumers will be as low as possible. The wording of such acts should be such as to aim at the end result,

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with guideposts along the way. Such acts should not attempt to spell out every minute detail. On the other hand, such acts should not be so broad as to allow excessive discretion to regulatory bodies. This can become very dangerous. Regulatory authorities should have a reasonable but definite degree of discretion. Please do not think that I am advocating extensive and complicated acts. I am convinced that regulatory acts can be definite and also flexible. They simply have to be drawn to allow a degree of flexibility but limiting the exercise of discretion.

I WOULD advocate that the members of regulatory bodies be paid well and that their salary basis be reviewed relatively frequently to maintain such salaries at levels fully competitive with free enterprise. I am convinced that greater effi-

ciency can be accomplished and incidentally that such a policy would result eventually in lower gas rates to consumers, due to more efficient and rapid action by able members of the regulatory body and the consequent reduction in costs to the public utilities.

PROCEDURE should be simple and clear-cut. Every effort should be made to enable hearings on rates to be carried out according to a relatively consistent pattern so that all concerned may be able to picture the situation as a whole. Proper rules of procedure and evidence save time and expense. One pitfall that I most heartily recommend be avoided is the permissibility of elected representatives to any regulatory body. This would, in my opinion, be extremely injurious to the consumer in the long run.

Why Not Let the Public Utility Fix Its Own Rates?

WHERE hearings are not well-organized and carried out in a consistent manner, perhaps the regulating act should empower the public utility to fix its own rates until such time as the regulating body can complete the hearings and reach a decision. There are, of course, problems in that if the regulating body does not approve the rate set by the public utility there may be enforced refunds. But where refunds become necessary the cost of extended hearings should be allowed to be deducted from such refunds. The public utility cannot bear this burden without it reacting eventually to the detriment of the consumer. It might just as well come out at the beginning as at the end.

Risk Factors

FRANCHISES are seldom exclusive. Granted in many cases they may be so for practical purposes, but every so often the problem of expropriation comes to

life. All of this is most unsettling from a financing point of view and just adds a different kind of risk to the operation of a public utility. There are, of course, the obvious risk factors; cost of gas, compe-



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tion of other fuels, obsolescence, none can be ignored, and I can assure you that no sensible farsighted investor does ignore them.

It should always be remembered that the greatest risks in investment are borne by the common stockholder, whether it be in connection with a public utility or an unregulated industrial enterprise. In spite of all claims, considerable risk still remains in an investment in any utility. The return allowed must be *attractive* to assure the possibility of *additional* funds being obtained through the medium of common stock.

From certain sources we have heard criticism of the fact that a balanced capital structure results in leverage to the benefit of the common stockholder. This is only true in times of increasing earnings. Regulatory bodies should remember that leverage can be very detrimental to the common stockholder in times of reducing earnings. Leverage is a two-way street.

Other Factors

A FEW other factors which add to the risk factor involved in the operation of a gas public utility, or any regulated utility as far as that goes, are the factors of attrition and regulatory lag. Both of these work in the same direction of thwarting the full effect of rate adjustments, and for which compensation should be provided. Attrition refers to the effects of increasing costs through changes in dollar purchasing power and other similar items and regulatory lag to the time required for preparation, hearings, and decisions before new rates become effective.

Another form of regulation which perhaps has been receiving some thought

lately is that of specific control of capital structure. May I say without any qualification this would be most harmful and injurious. The money markets and the investors on this continent have their own sensible time-tested form of regulation. No major financing can be done for any public utility without observing unwritten but none the less potent forms of capital structure regulation which already exist in the financial markets on this continent. This is an intangible but very effective method of control. Regulatory bodies and government authorities should leave this field very much alone. In England recently, after a decade of causing confusion and difficulty, the Capital Issues Committee, a body formed to control capital structures and regulate the flow of new issues, was finally disbanded after a relatively sad record.

Financing a Utility

IN viewing regulation of any public utility I can assure you that the investor, although in a sense pleased that perhaps a degree of stability may be added due to the basic character of a public utility, insists on an adequate dollar revenue to give certain margins of protection for securities being issued or outstanding. This, of course, again comes back to one of the many intangibles that affect the final cost to the consumer. Sufficient earnings *must* be allowed to the public utility to provide adequate coverage for debt servicing requirements, preferred dividends, and a good return on common stock, and in relation to what is being earned in other industries of equivalent or comparable risk. The public utility, in the market place for investment capital, is just another com-

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petitor. If unregulated corporations offer more for the money the public utility will lose in the end and be forced to pay more and more.

I submit that regulatory bodies should bear very much in mind the necessity of any public utility being granted rates, a rate base, and an allowable rate of return enabling it to finance on an economical basis.

FURTHERMORE, the end result, from the investor point of view, must have produced earnings *in the past* sufficient to provide an attractive return on capital invested in order to make future financing possible on an economical basis. The time of the greatest need for such treatment is in the time of greatest expansion. The past earnings record of a public utility can have a major bearing on financing costs. Large-scale expansion plans nearly always require common stock money. The cost of such money can be very materially affected by the treatment accorded the common stockholder in the past by regulatory bodies.

Let us face facts; utilities are just as competitive with other industries for money as they are with other fuels for business. Sensible regulation should face these facts and attempt to provide an answer on a positive and constructive basis, not on a negative and destructive basis.

IN closing, a capsule summary might be the suggestion that regulation should be based on common sense, after having studied *all* factors relating to the problem.

No one really objects to reasonable regulation provided it is not one-sided, provided it is not arbitrary, and provided it is administered sensibly and intelligently.

Regulation should be flexible. Today an opportunity exists in Canada to benefit from the experience of others. Surely this advantage should be seized upon and used to the utmost. With such an approach all elements of society involved in public utility situations, whether they be the consumer, the employee, or the investor, will benefit to the *greatest extent in the long run*.

"THE progress that has been made in a short time is a clear sign, if any were needed, that we are not running second to the Russians in scientific minds. But could more be done to use them? Is there possibly too much government in research? After all, American scientific and technological progress has historically been the result not of government but of the freest possible play and interaction of many minds in many places.

"Plainly the scientific and technological questions about space can be answered only by the experts, and in such a complex field it may be that the U. S. is doing better right now than it seems to be. But everybody has a right to ask the policy questions. The evidence shows the U. S. is not facing catastrophe, but it also shows the U. S. has cause for concern."

—EDITORIAL STATEMENT,
The Wall Street Journal.

By JOHN J. HASSETT*



The Utilities' Crystal Gazers

The men who project future needs of utility companies in terms of plant and equipment so that such facilities will be ready at the right time and place, perform the most complex job in the business. Mushrooming communities and exploding population make scientific crystal ball gazing vitally important to efficient planning and building. Every prediction involves a calculated risk based on facts and known trends and balanced by sound judgment.

NOT long ago a prominent suburban builder near a large metropolis celebrated the completion and sale of the one-thousandth house in a huge subdivision. When ceremonies were held, the builder and his mortgage banker shared the spotlight, accepting congratulations for their foresight, acumen, and construction know-how. No doubt they deserved the plaudits. But there were at least three men present at the occasion whose foresight and acumen had kept them informed about this property years before the builder controlled it or thought about building on it. Each of the three had, to some de-

gree, made it possible for the builder to build, and made it easier for him to sell his houses.

THESE men were officials of the three utility companies serving the area—the telephone, gas, and electric companies. These three were masters of the highly developed, exacting yet exasperatingly human science of expansion planning for their organizations. As much as fifteen years before this particular acreage was subdivided into lots and roadways, the utility planners were roughing out schemes to serve the section, just as they had charted the expected speed and direction of growth in each portion of their franchised territories.

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IN every utility company which still has some geographical area to grow in, a man or a group of men must act as soothsayer, crystal ball gazer, engineer, and urban and suburban planner. His job is to determine where, when, and how the utility should extend its lines, construct its plants and substations, in order to keep one jump ahead of its customers. The challenge is to provide the best and most economical service to the most customers, while at the same time bringing in the maximum possible return on the utility's investment of expansion dollars.

The utility planner must be no more than one jump ahead of its customers, however. Otherwise plants and lines built ahead of demand will tie up capital unproductively. The need for the facility must be foreseen accurately well in advance, so that demand can be supplied as it develops, and costly "crash" construction programs, to catch up with unexpected load demands, can be avoided.

While all available scientific information must be gathered and studied, it needs to be tempered with some reliance on the human factor. For planners have to rely on the individual builder and the industrial developer. The planner is constantly betting the company's money that the builder and the developer can or cannot accomplish their ambitious plans.

Residential Planning Most Difficult

SUCH a problem is much more acute, from the utility's standpoint, in the area of residential expansion than in industrial or commercial, mainly because the latter two are frequently mapped out in broad substantial sections near rail lines or major highways and are usually clearly

identifiable. Then too, occupancy of an industrial site by a company depends to a great extent on the availability of the required utilities. Other important factors to industry are easily charted or mapped—for instance, nearness to markets, abundance of available labor, or nearness to the source of materials.

Housing, as we know it today, is largely in the hands of the speculative builder. That makes it a much more elusive element to figure, since the public ultimately calls the shots. The type of homes, the clientele the builder is trying to reach, the willingness of school boards to build, and the promise of adequate schools, shopping centers, and church and community activities, all must be evaluated by the builder, and appreciated and understood by the utility planner. Even the lack of available sewer and water lines will not stop some developers, although it certainly does influence home design and the eventual character and personality of the section.

Aside from its importance to the company's profit picture, utility planning plays a vital rôle in community growth. Without it, a city's progress may be slow, haphazard. With it, a community can build bigger and better, attracting more industries, finer people, nicer homes, and more growth, in a never vicious cycle of prosperity and advancement.

Forecasting Varies with Type of Utility

IN each utility—electric, gas, and telephone company—the forecasting takes a somewhat different form, follows a varying pattern of implementation and engineering, and reaches its conclusions about the potential market at a different time in

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relation to that area's growth pattern. The telephone company, for example, starts its planning earliest, as much as fifteen years ahead of construction. But it takes the longest to get there, because of its special complexity and the fact that each service is tailor-made. The gas company need not be there at the time the land is subdivided, nor even when the bulldozers arrive, but it had better be on hand when the first home goes up, or it will forfeit the cooking, water-heating, and space-heating business to the electric company, or to the fuel oil dealer.

The only really essential utility service—electrical—has possibly the biggest problem of proper timing. All the utility planners from all companies, however, share common fears that they will build too soon. The thought that unproductive equipment will be standing around idle, depreciating with little use, is a sobering one to utility executives. So is the alternate dilemma—demand outracing supply, leading to overloading of reserve facilities or the spending of cash in premium payments for land and rights of way after the area has begun its spiraling rise in property values.

MOST planners are engineers, but many are sales executives. Actually, the job itself is a combination of the top skills of both professions, and it can be done competently only with the aid of dozens of staff people, plus copious records and analyses. The position makes a man a super-specialist in his home town's growth potential. Some of the methods used in expansion planning might be adapted from city to city and from company to company, but careful study and intimate knowledge of the community and its environs is a most essential prerequisite.

This mastery of methods and municipal acumen is displayed well in Washington and suburbs by the telephone company's Robert Kautz, an easygoing, articulate

Added to this worry is the constant awareness that demands of present utility customers are going up every day. Consumption of electricity, for instance, is increasing at the rate of about 8 per cent each year. Every ten years, requirements have roughly doubled that of the preceding decade. And with the cost of investment capital steadily increasing, there is plenty of pressure on the planner to make his estimates as accurate as possible.

Crystal Ball Gazers

THE planning seer himself usually inherits a different title in each utility. In Washington, D. C., only Daniel C. Vaughan, who co-ordinates the planning for the Potomac Electric Power Company, is properly classified as "planning engineer."

His counterpart in the Washington Gas Light Company, James E. West, answers to "residential sales manager." In the Chesapeake & Potomac Telephone Company, the significance of Robert L. Kautz's work is hidden beneath the mundane job description of "general commercial engineer."

veteran of years with the Bell system. Kautz's philosophy about expansion can be summed up like this: Know where you are going; have alternate ways to get

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there; reappraise the situation frequently; choose the way that offers minimum overall cost; and provide service as it is needed. This is, by and large, the Bell system's expansion credo.

How Planning Works

LET's illustrate those points by actual examples. To know where lines will be going, planning must start nearly a generation ahead of need. Long-range estimates of growth are made, and the approximate need for phone service is charted. Kautz, when studying the long-range picture, must include his best judgment of people and organizations which could affect that growth. He listens to chambers of commerce, trade groups, zoning commissions, real estate boards, civic clubs, builders, and bankers. He keeps tabs on national financing conditions, proposed government moves or expansions, since these often take a long time to get going and affect many things when they do.

Kautz also must consider the type of service most likely to be used in the given area. Heavy concentration of buildings, such as a government agency, a large apartment development, or a suburban business district, may require nearby central station service. That means the potential cost to the phone company will include substantial investment in real property and construction. And here is where the "alternate ways to get there" become important.

Kautz knowing his comparative cost formulas, can make an early assessment of whether it will be cheaper and better in the long run to plan another central station near the new section, or to extend some high-priced, high-capacity phone cable from a more distant central station.

Costs for the new station may run to half a million dollars, but this will permit the use of lower-priced cable (let's say \$90,000, to provide a comparison, for a total investment of about \$600,000). Cost of the high-priced cable, in lieu of substation, may hit a quarter of a million dollars, which seems like quite a saving over the alternative. However, the prospect of additional load on the lines within a few years may make the more expensive alternate eventually the cheapest one.

ALL these possible capital expansion moves must be calculated, like pawns in a giant chess game, over and over again as the years pass and the area begins to burgeon. Things always happen, requiring and justifying the constant re-evaluation. Perhaps a highway is rerouted closer to the section under study; a zoning change is proposed; a jet airport is suggested for a few miles farther out of town. Any number of unconnected events may affect the area's potential development, and its eventual need for phone service.

Finally, the constant rechecking must give way to positive action. Service construction forces are committed on the basis of the seer's by-now confident opinions. Ten years may have passed, and signs of the area's unmistakable direction and quality of growth are clearly read by the planners. Thus, the phone company is usually there when the service is needed.

"Our long-term estimates have tended to be on the low side," Kautz admits, "but everybody's has! It hasn't caused us too much trouble. Actually, shifts have been slight in central station location. We have had greater difficulty meeting demands for private line service to replace party lines

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in mid-town areas. The proportion of individual service has gone up in the nation's capital from 44 per cent to 84 per cent in the last few years, and demand for private lines is still increasing. This means that the phone company may spend plenty for more lines without adding any customers at all!"

Growth Problems of Electric Utilities

A SIMILAR situation complicates the growth pattern in the electric utility

IN THE electric business, new suburbs and mushrooming environs increase the load and spread it farther from points of generation, while the in-town load on already existing lines creeps steadily upward. Air conditioning has been the greatest stimulant. The ever-broadening market for all types of appliances indicates that the saturation point is nowhere in sight. Therefore, electric utility forecasters now see the load doubling in the next ten years, then sloping to more gentle gains thereafter with no down turn likely.

This is a happy dilemma, of course, but it is none the less a real one, and whatever the answers, they will undoubtedly be more expensive than ever. The factors affecting the market in the future may completely change the utility's theory of distribution, or influence load balances from season to season for better or worse. Some practical applications of the heat pump, for example, could do this. The heat pump uses much less current for heating than does resistance heating, in all but extremely cold climates, but provides a far better annual load factor than air conditioners.

As the total residential load increases, the day may come when there will be a transformer on every pole, to step down

business, where line costs are greater than substation costs. Historically, generation of power requires about 40 cents of each investment dollar, with 60 cents going for transmission and distribution. The Potomac Electric Power Company, which serves Washington and its Maryland suburbs, has been able to keep distribution costs per kilowatt at what they were twenty years ago. But generating costs are always going up, even though newly developed operating efficiencies help to counteract the higher costs of materials and services.

current from high voltage feeder lines for domestic service.

Planner Daniel Vaughan of Pepco feels that his beleaguered company will continue to provide single-phase service in the home, but that the capacity of feeder lines must be increased if they are to carry the load. "We are now using 13,000-volt systems for some distribution, in place of the 4,000-volt system generally in domestic service use. Capacity is important, but we look forward to a big market for new appliances which will help to level peaks and valleys of load," Vaughan says. "Meanwhile, we supplement our regular system planning activities with special market studies of what seem like upcoming problems that may affect long-range service needs."

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Air-conditioning Market Study

ONE of these special studies concerns the eventual market in the Washington area for built-in residential air-conditioning systems, as distinguished from the normally increasing use of room air conditioners. In many areas in the South and Southwest, home builders are installing air-conditioning systems in practically all new homes selling above the \$10,000 mark. This type of residential system is now making a substantial impact in Pepco's service territory. Washington has become a high-cost building area, and builders are wary of pricing themselves out of the market. But the scorching Washington summers keep sales of room units rolling, and it probably is only a matter of time and price before built-ins become accepted in the mass market home, which now sells for between \$15,000 and \$25,000.

Other special studies are under way in Pepco to learn the potential demand for electric water heaters, electric space heaters and space-heating systems, and the domestic heat pump. Preferential rates are now in effect in many companies for these appliances, primarily because they help to firm up the service load and flatten out peaks and valleys.

GROWTH of air-conditioning load in the last few years has dictated a great effort to move into residential heating to help balance unfavorable load factors. With 300,000 homes in the U. S. now heated electrically, market potential is yet untapped.

The goal of the electric heat industry is two to three million homes by

1965, plus an equally big push in the commercial and industrial field. Backed by the well-heeled and aggressive electrical manufacturers, the drive for electric space heating in the decade to come will be spectacular, and the competition may have far-reaching, permanent effects on the utility business' economic status.

DESPITE the most careful planning, sometimes demand does erupt from an unforeseen quarter, usually a government agency, and the result is chaotic for a while. Vaughan, a careful, methodical man, still shudders at the shambles created in his orderly system planning by the sudden decentralization move of the federal government's Atomic Energy Commission recently.

Vaughan recalls that Pepco first learned of AEC's intention to relocate beyond H-bomb blast distance from the center of downtown Washington through a newspaper article, appearing in *The Washington Post Times Herald* in August of 1955. At about the same time, the company received a letter from the General Services Administration, government's housekeeping agency, advising that AEC would need four to five thousand kilowatts of power when the building was finished twelve to eighteen months hence. A "crash" planning program was launched in the company immediately. Within sixty days preliminary plans had been developed. These called for extending new lines from Pepco's Takoma station, approximately sixteen miles from the AEC site in Germantown, Maryland.

Meanwhile, plans were drawn for construction of a substation near the building site, to be ready by the time the new AEC

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headquarters was completed and ready for occupancy.

Anticipating extensive growth in the general vicinity of AEC and in the huge, partially developed areas of Montgomery county, which were already growing at a record pace, Pepco reinforced this new line to serve its existing customers better, installed double the required capacity in the new substation, and provided space and facilities for further expansion in the future.

THIS foresight paid off at once, for even before the building was completed, several new wings were added to take care of three hundred more workers hired in the intervening months. The utility's construction work kept pace with the building contractor's, so that service was available when the agency moved in, in January, 1958.

Since then, three other federal agencies have made overtures toward the hinterlands. The U. S. Bureau of Standards wants to move to Gaithersburg, Maryland, only a few miles from AEC. Although funds for construction of the new bureau have not yet been pried out of Congress, Vaughan and Pepco are ready with an

assortment of design solutions to whatever develops on Standards' electrical requirements. The National Aeronautics and Space Agency has under construction a new large facility near Greenbelt, Maryland.

The other federal agency on the move—Central Intelligence Agency—is building at Langley, Virginia, not in Pepco's franchise territory.

Gas Has Expansion Problems, Too

JIM WEST of the Washington Gas Light Company has not been confronted with such sudden governmental demand for millions of cubic feet of gas, but he gives the impression that he and his staff could handle it with aplomb. West is quick to point out that the matter of planning future operations is one of teamwork. His company wisely has set up a program which enables representatives from all affected departments to meet periodically. At these meetings there is a blending of all facts and opinions reflecting engineering, accounting, rate making, and, last but not least, sales personnel. The results of these meetings are the basis from which both short- and long-range estimates are prepared and ultimately become the company's operating budget.



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Spending Millions Isn't Play

JIM WEST's most anxious moments occur when he and his fellow members of the management team commit millions of dollars of the gas company's money to extend a gas line two to ten miles into nowhere, in a gamble on a builder's dream. The gamble so far has always paid off, and it proves to West that there should always be room for the human equation in every decision affecting system expansion. Of the three major types of utility, gas companies across the country generally spend more money, put forth more work, and "personalize" their planning to a greater degree than the others.

"Our estimates cannot be merely in the realm of the statistical," West explains. "We must operate from firsthand knowledge of what is going to happen. We don't wait for the builders to apply for service. We're on the street every day talking with lending institutions, architects, engineers, and builders. Our boys are right in the ball game, rather than sitting in the grandstand."

SOME of the human factors West takes into consideration in planning are: (1) his theory that every twelve years a community changes in character; (2) his optimism that American youth's proclivity to marry earlier in life will increase the home-building market even faster than population growth in the next twenty years; (3) his observation that, as a rule, cities spread primarily to the North, rather than in all directions, but that Washington, D. C., is different, because of its lack of natural or geographic barriers, its almost total absence of heavy industry, and its bistate neighbors—Maryland and Virginia—which offer permanent residents the widest possible choice of individual homes and residential communities.

Even the questions asked of West by his management have a human element in

them. For example: How much gas will we sell this year? How many customers will be added in 1962? Where will they be located?

West supplies the answers so that financing folk can determine what each customer will cost and how much money will be needed. Other departments will translate West's answer into so many meters, feet of main, miles of pipe. For Jim West himself, forecasting expansion five or ten years into the future is an exciting, almost a romantic, challenge. Fanning the competitive spark into a flame is second nature to the snow-thatched salesman who instinctively dramatizes gas, its dependable service, and its useful appliances.

Underestimating Is Dangerous

IT is this competitive spirit, and his unquenchable optimism for the fine future of the gas business, that keeps West zestfully playing the game for high utility stakes.

"Conservatism is dangerous in this industry," he says, "because it leads to complacency. We can't afford the luxury of underestimating, just for the sake of being conservative or playing it safe. If we don't serve the first house in a new sub-

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division, we may find an electric 'island' going up—an electric wall where gas can't

get in at all. So we don't let that happen, if we can prevent it."

THE GAS company planners are apparently ready for the coming battle over the residential heating market. Having built the Washington area gas-heating load from 100 gas-heated homes to more than 230,000 gas-heated homes today, West thinks the future looks even rosier. One of his favorite sayings is "Gas has a past full of progress, and a future full of promise." As a source of energy, gas has unlimited possibilities and is, in West's opinion, far more flexible than any other form of energy. He likes to talk about the gas industry's 24-hour-a-day laboratory efforts to open new frontiers for the fuel through new uses, and the built-in consumer acceptance that gas already has achieved that will ease the entry of new applications of the product to the home.

One of the newer uses of gas is in the summer cooling field. With the aid of a new air-conditioning rate, which enables the average home owner and commercial user alike to enjoy the benefits of all-year climate control under economical operating cost conditions, West's company expects to make strides toward a substantial portion of this market. There are research reports which indicate that new types of gas-fired cooling equipment will soon reach the manufacturing stage, and thus accelerate the effort.

New Markets Are Planned for

IN the electric and telephone utilities, meanwhile, similar thoughts of great new markets for as yet undreamed-of products and systems are being digested and planned for. There is solar heating on the horizon, and there are fantastic thermoelectric materials, being toyed with in laboratories, that may revolutionize utility economics. Some compositions react when an electric current is passed through panels of dissimilar metals to produce reversible heating or cooling cycles. Westinghouse has even demonstrated an

electroluminescent substance which makes possible a panel that will light a room while heating or cooling it at the same time.

But the biggest, steadiest gain in use of electricity for the next ten years, Vaughan feels, will be caused by the steady addition of more and more appliances—both spectacular and unspectacular in nature. In and around the nation's capital, he sees upsurges in popularity of room air conditioners, all types of heating and cooling devices, and in the growth of electric heat in specialized markets, like churches and civic meeting places, which are not heated constantly but need peak heating in a hurry for short periods of time. "Today's domestic customer uses about 3,300 kilowatt-hours annually," Vaughan points out. "It is not impossible in fifteen to twenty years that his average use will be much closer to 10,000 kilowatt-hours!"

NATURALLY, the phone company takes no back talk from anyone when it comes to a rosy future. The second phone in the home has become almost as popular as the second bath. Two-phone families

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have grown from 14 per cent to 28 per cent of all customers since 1955. There is push-button dialing, for one thing, looming up ahead, and there are all kinds of consumer services which the phone company is getting ready to offer its customers electronically, each of which will increase the complexity and capacity of telephone lines and services. And while domestic uses multiply, researchers are improving central station and transmission equipment, so that it can meet the market as it builds.

So the future need for the system planner seems assured. In every utility,

there must always be a man, or group of men, who will combine these unique abilities and attributes: fortitude—to take the calculated risk with the company's money, rather than to play it safe; financial acumen—to judge accurately how much will be needed and when; vision—to see a market where none exists at the moment; sensitivity—to read and interpret hundreds of indices correctly, most of the time; understanding—of men and of mechanics, to distinguish between fact and froth; humility and a sense of humor—to keep the perspective high and the pressure low, in one of the toughest jobs on the utility's table of organization.

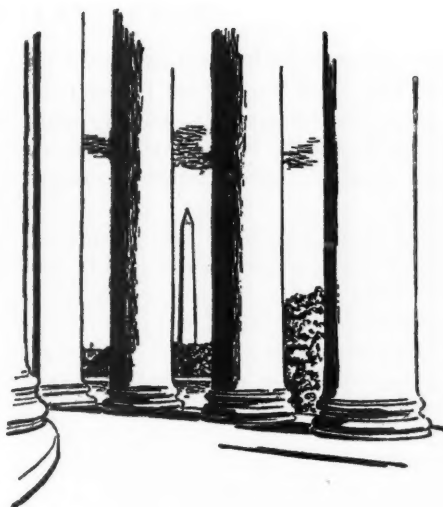
The Featherbedding Cloud

THE big cloud ahead is labor unrest. The outcome of negotiations now in progress may have an important bearing on the ability of the economy to capitalize on the markets of the 'Fabulous Sixties' and to realize its full growth potential. In one recent union-management dispute after another, the crucial issue has turned out to be working rules and the right of management to promote efficiency and cut costs.

"If a businessman is not able to obtain the cost reductions he expected from an expensive piece of new equipment, or if the efficient scheduling of his operations is repeatedly disrupted, his incentive to make further investments of this sort is greatly diminished. The investment climate for the steel industry is certainly not enhanced by union insistence on work rules which perpetuate outmoded 'past practices.' The railroads' plight is not remedied by rules encouraging 'featherbedding,' nor does dock union opposition to new cargo-handling techniques speed the prospect of substantial investment in automation. Investment decisions in firm after firm may depend on the attitude toward cost cutting and technological improvements which emerges from current negotiations. Yet these investments, and more efficient utilization of man power, are the very means to the progress everyone wants."

—EXCERPT from First National City Bank
Monthly Letter.

Washington and the Utilities



Supreme Court Orders FPC to Re-examine Transco

THE U. S. Supreme Court has directed the Federal Power Commission to make further examination of the rates approved in 1958 for the Transcontinental Gas Pipe Line Corporation (Transco). Transco had applied to the FPC for permission to expand its facilities in order to bring more natural gas into the western seaboard from the Gulf area. The expanded facilities were estimated to cost \$150 million. The new gas was to come from 26 producers at an initial cost ranging from 21 to 22 cents per thousand cubic feet.

The brief court order cited a similar case on which the court had ruled in June of 1959. In that case, involving the Tennessee Gas Transmission Company (the Catco case) the court said that the parties had not justified the starting rate.

The New York Public Service Commission has brought both of these cases to the high court, contending that the FPC should have conditioned its approval of the new projects on a lower price.

The Transco case had cleared the FPC before the court's decision of June and

the New York commission asked that it be reconsidered in light of that decision. The FPC, however, contends that the Catco price was struck down because there was insufficient evidence to support it, rather than being a bad rate itself. The FPC believes that sufficient evidence exists to support the initial prices to Transco.

In the Catco decision Justice Clark reprimanded the FPC for not paying more attention to the ultimate consumer. He also pointed out that when inequities in an initial rate are corrected there are no refunds.

The FPC has announced that new hearings on the Catco case have been set for January 12th. At the present time the contracts are in effect and gas is being transmitted at the disputed rate of 22.4 cents.

Publishers Seek Reversal of Ad Tax Curb

ELISHA HANSON, general counsel for the American Newspaper Publishers Association, in testimony before the House Ways and Means Committee has

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criticized both the Internal Revenue Service (IRS) and the Federal Power Commission for rulings as to electric utility advertising as a business expense—for taxes and regulatory purposes, respectively.

Mr. Hanson believes that the government's taxing power should never be used to restrict or penalize the dissemination of information, regardless of its content or purpose. He stated that no government agency should "be vested with power to determine what advertisement will best serve the particular advertiser and the sale of his products."

Representative Brooks (Democrat, Louisiana) also criticized the IRS and FPC and called their rulings a threat to press freedom. Backing the position of the American Newspaper Publishers Association, he stated that the IRS and the FPC acted as they did because of pressure "by forces in and out of Congress which favor more government in the electric power business." "These folks," Representative Brooks said, "have been disturbed by the fact that electric power companies are using advertising to inform the public about the threats to their industry." However, he added that no distinction should be made whether advertising is done to meet private competition or competition from government. "We should be even more jealous of the rights of private business and industry to protect itself against government than against private competition because of the police power inherent in government," he said.

LITTLE legislative action can be expected on this question at the present time; however, the publishers hope to impress the committee with the importance of safeguards to protect "free advertising" as part of a "free press."

The electric utility companies are proceeding with their hearings before an FPC examiner. A. J. G. Priest, counsel for 76 utilities contributing to an advertising program, has battled over a narrow procedural ruling, made originally last July by the FPC, that testimony should be restricted to justification of contributions to nine specific advertisements which appeared in a 1957 series on the Electric Companies Advertising Program. FPC Examiner Marsh, on motion of the FPC staff attorney, refused to admit a broader line of evidence marshaled by Priest which would include testimony from a number of utility executives and others. Their testimony, however, was permitted to go into an appendix for the eventual use of the U. S. circuit court of appeals for the District of Columbia. Priest was obviously building his case for court record to clarify the broader issues involved. However, this must be preceded by a final FPC ruling following the examiner's opinion.



Missouri Power Distribution

INTERIOR Secretary Seaton has announced a method of allocating federally generated hydroelectric power in the eastern area of the Missouri river basin and approval of a power distribution formula recommended by a consulting board.

Allotments to preference customers approximate 83 per cent of their estimated 1963 power needs and there was no allotment to nonpreference customers. However, the argument stirred up by North Dakota, which has no substantial public ownership "preference" customers, against the possible hogging of the supply by the all-public ownership state of Nebraska, is still having repercussions.

Proposed allotments to five federal

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agencies in North Dakota and Nebraska not now receiving service from the federal electric power system will be held in abeyance pending further study.

Court to Hear Depletion Arguments

THE U. S. Supreme Court has agreed to decide the proper way to figure the tax depletion allowance of mining companies which are also manufacturers. The court has consented to hear arguments on the issue some time next term and it will then issue a written opinion.

Mineral depletion allowances were put into the tax law because Congress felt that special consideration was due taxpayers when the source of their income (minerals) was constantly being diminished.

The current case involves the Cannelton Sewer Pipe Company of Indiana which mines fire clay and shale and then manufactures its own products. The depletion allowance on fire clay is 15 per cent of gross income and the company seldom sells any raw products.

The question revolves around the problem of whether the company should be permitted to take its depletion allowance on the gross proceeds from finished products when the value of the minerals involved has been greatly enhanced.

The Justice Department has pointed out that this practice would give miner-manufacturers a tremendous advantage over miners who are not manufacturers. In its plea for a review of a lower court ruling the Justice Department pointed out that the ruling would cost the government about \$598 million per year. Solicitor General Rankin stated that "in our view this is one of the most important tax cases presented to this court in years." There are already 380 claims pending

before the Internal Revenue Service or the courts.

Commission on Intergovernmental Relations Meets

THE new Federal Advisory Commission on Intergovernmental Relations has held its first meeting at the White House. This group is composed of members of Congress, administration officials, governors, state legislators, mayors, county officials, and representatives of the general public.

Representative Dwyer (Republican, New Jersey) cited the law establishing the commission, which directs it to study problems "that are likely to require intergovernmental co-operation." She, therefore, asked that the commission begin its program with a study of the commuter transportation crisis. The New Jersey Congresswoman observed that the overlapping of federal, state, county, and local government jurisdictions in the field of commuter transportation was a "principal factor in the current breakdown of commuter transportation."

"No other public body possesses the authority or jurisdiction to inquire into this critical situation," she said.

The first meeting was devoted to organizational problems and the legislator's proposal to study the transit problem may be taken up when the commission reconvenes in mid-February.

Atomic Energy

THE AEC spent 9 per cent more money in fiscal 1959 than in the previous year, according to 1959 financial reports. This increase embraces all of the various projects of the commission. Of \$356 million spent for reactor development, \$105 million was specifically for developing of

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civilian reactor concepts for stationary power use. Only \$79 million was spent by the commission in fiscal 1958 for this purpose. This represents an increase of 33½ per cent.

The cost of producing nuclear materials decreased \$37 million over 1958, dropping to \$713 million. Financial support of nuclear training amounted to \$8 million in fiscal 1959. Plant construction completed in the 1959 period came to \$237 million, including \$101 million in new reactor development facilities. The total estimated cost of plant projects under construction as of June 30, 1959, was \$831 million.

Oil Import Quotas Increased

THE Interior Department has increased the allowable oil imports for the first half of 1960 by 79,855 barrels daily. Most of the increase was for residual fuel oil imports, although a bigger gain was expected for heavy fuel oils.

Joseph Moody, president of the National Coal Policy Conference, declared that the proposed increase in residual oil imports was a blow to the domestic coal industry and he planned to ask that the department lower the quota.

FPC Criticized for "Skyrocketing" Gas Prices

A FRESHMAN Congressman has issued a mild threat to ask for a sweeping investigation of the FPC's alleged laxness in the regulatory field. The statement was made at a hearing before the commission which is now considering a \$24 million annual rate increase sought by the Tennessee Gas Transmission Company. The Congressman is Representative

Hechler (Democrat, West Virginia), who hails from the coal mining district of Huntington, West Virginia, which may explain his lack of enthusiasm at the expansion of natural gas into new market areas under FPC authority.

Representative Hechler said that during the past four years producer price had risen from 11.5 cents per thousand cubic feet in 1954 to 21.5 cents in 1958, and he indicated that a satisfactory formula of regulation would have prevented this increase. He stated that "the purpose of regulation is to prevent price gouging and to protect the consumer. This commission is neither regulating nor protecting. It does not appear to have a policy."

Thirty-day Monitoring of Flight Operations Ordered

A 30-DAY monitoring of all scheduled air-line training flight operations has been ordered by the Federal Aviation Agency in order to detect irregularities or deficiencies in operations. The monitoring, which began on December 7th, is designed to insure that the highest level of safety is being maintained on a day-to-day basis.

Way for Joint Control Cleared

THE Pennsylvania Railroad and the Atchison, Topeka & Santa Fe railroads have received the "go-ahead" signal from the U. S. Supreme Court in acquiring joint control of the Toledo, Peoria & Western Railroad.

The Interstate Commerce Commission on October 30, 1957, authorized the acquisition through stock purchase. However, the ICC decision was taken into court by the Minneapolis & St. Louis Railway, which also sought control of Toledo, Peoria & Western.

Telephone and Telegraph



Communications Excise Tax Ruling

THE United States court of claims has ruled that communications services furnished via radio (as distinguished from communications moving over wire lines) are exempt from excise taxes. This decision was reached in a case decided on December 2nd, involving an electric equipment program service company seeking a tax refund from the U. S. Internal Revenue Service.

The successful suit was brought by Hampton Roads Industrial Electronics Corporation, which furnishes musical programs to commercial subscribers (restaurants, stores, industrial plants, etc.) in the Norfolk-Newport News area. Some of these are furnished via leased telephone or other wire lines and as to those no claim for refund was made for excise taxes imposed (by § 4251, Internal Revenue Code of 1954) on "wire and equipment service." Most of the subscribers, however, were served by FM radio facilities. The court upheld the Virginia company's claim for tax refund on such radio customers.

The federal excise tax imposed on such communications service amounts to 8 per cent of the amount charged, as compared with 10 per cent on monthly telephone bills, telegrams, long-distance calls, and leased wire service. The government

argued that when Congress used the phrase "wire and wire equipment service," it intended to include any technical methods of communication not already in regular commercial use and not otherwise expressly taxed. The government further argued that because some wire transmission was involved in radio operation, the tax should stand. The court rejected both contentions, holding that when Congress used the word "wire" in its tax law, it must have intended to exclude radio. The decision of the court, which was unanimous, apparently has no application to the 10 per cent tax on long-distance telephone and telegraph messages, even though a great volume of such communications are carried, in part, via point-to-point radio transmission.

THE court's opinion by Judge Laramore laid stress on the expressed tax provision of the law. Because Congress did clearly intend to tax telephone, telegraph, and other commercial communications, and because it also clearly limited the tax to "wire and equipment services," the conclusion that it intended to exempt similar radio services must stand. Judge Laramore further stated:

. . . defendant (Internal Revenue Service) contends that it is diffi-

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cult to believe that Congress intended to discriminate in favor of those subscribers who receive the service in part via radio and against other subscribers who receive the musical program service wholly by means of readily accessible wire lines. If there is discrimination in the imposition of a tax, it is for Congress to remedy not the courts.

The government, which has until March 3rd to decide whether to appeal, will probably ask for a U. S. Supreme Court review to avoid tax amendment legislation based on alleged discrimination in the next session of Congress.

FCC Hearings on Broadcasting

THE Federal Communications Commission has been holding hearings on methods of improving the quality of broadcasting. The commission is also trying to determine whether it has power to crackdown on such practices as rigged TV shows and "payola" or if it must turn to Congress for new laws.

The commission has heard a number of witnesses and a number of suggestions have been made.

Charles A. Siepmann, professor at New York University's School of Communications, urged the commission to go back to the "blue book" on program standards which he helped write in 1946. The "blue book" attempted to lay down guide lines for balance between entertainment and public service. The report met with a storm of criticism and even now FCC members question if they have such regulatory power. Chairman Doerfer has expressed the opinion that "the printed media" might be concerned if the commission got into the censorship of program content. This, of course, would be in relation to the

constitutional free speech and free press guaranties.

Professor Siepmann also proposed a "revised procedure" for appointment to the commission and he stressed that such appointments should not be made on the basis of politics. He would center his choice on men who exhibit "evidence of proven integrity, high intelligence, and distinguished public service, with particular consideration of such service in the arts and science."

PROFESSOR William Y. Elliott of Harvard University urged the commission to establish a citizens' advisory commission. He also asked the FCC to take bolder steps to test its powers over deception and bad taste in programing.

The Very Reverend John J. McClafferty of Catholic University called for the strengthening and extending of the FCC code of standards and censuring violators. Monsignor McClafferty also called for a clearer guide line on the "public interest" standard contained in the Communications Act.

William F. Buckley, editor of the *National Review*, suggested a system of subscription television which would be paid for by the viewer and which would be free of commercials. He also forecast that such a move would probably improve the quality of the programs received by those who stuck with free TV.

Just where these hearings will lead is not entirely clear at the moment. The networks seem to be making efforts to reach some sort of a solution, the commission is at work, and at least one house investigating committee has announced that it may hold hearings on the subject of "payola."

A definite shake-up seems in the making, but it is difficult to determine from which direction it will come.

TELEPHONE AND TELEGRAPH

Reflecting Satellite Announced

THE United States plans to place a radio-mirror satellite in orbit this spring. The aluminum-coated balloon will orbit 1,000 miles above the earth and will enable scientists to bounce signals from the East to the West coast.

The National Aeronautics and Space Administration expects to put enough of these balloon satellites into orbit to establish a world communications system. Such a satellite system would make the world-wide transmission of TV possible.

The balloon will be similar to the one which was inflated 250 miles above Wallops Island, Virginia, on October 28th.

NASA has stated that the satellite will be constructed of .0005-inch thick Mylar plastic and will be inflated by vaporizing water. Once inflated the balloon will stand as tall as a 10-story building and it is expected that it will be seven times brighter than the polestar.

In making its announcement NASA departed from its long-standing policy of withholding such information in order that scientists throughout the world can make ready for the launching. The establishment of such a series of radio-mirror satellites could be used for the world-wide transmission of radio and TV broadcasts and could, of course, be adapted to telephone communications.

"Magic" Facsimile Paper Demonstrated

POST OFFICE and International Telephone & Telegraph Company representatives have been given a demonstration of a new "magic" facsimile paper at the Alden Electronic & Impulse Recording

Equipment Company, Inc., at Westboro, Massachusetts.

The paper (produced by Alfax Paper & Engineering Company) receives a message which then disappears and reappears at a given time, after being sealed in an envelope. The Alfax Company has been engaged in research work on facsimile papers which would eliminate the conventional high current "burning" of a coated paper surface.

One of the major objections to the transmission of mail by facsimile circuits is the violation of the "sanctity" of the mails. Before any large-scale transmission of mail can be undertaken, this problem must be solved.

Township to Lose Free Telephones

ON May 27th Union county, New Jersey, township officials will begin to receive telephone bills for the township's three telephones.

The township committee appears to have been startled when it received a notice from the New Jersey Bell Telephone Company advising it that billing would commence in May.

Half a century ago the telephone company (then a part of the New York Telephone Company) sought to expand its service. A bargain was struck with local officials which permitted the company to put up telephone poles in exchange for three free telephones for fifty years. The agreement had taken place so many years before that the majority of residents no longer remembered the arrangement.

Such agreements were not unusual in 1910. However, in New Jersey such arrangements were forbidden in 1911 when the public utility commission was established.



Financial News and Comment

By OWEN ELY

IBA Condemns Interest-Subsidized Public Power

THE IBA Utility Securities Committee in its recent report to the convention commented at length on the recent TVA legislation and other public power developments. While the new law gave TVA the right to issue \$750 million revenue bonds, nevertheless, amendments helped somewhat to safeguard neighboring private utilities: Extension of the present service area was limited to an additional five miles around the periphery. TVA must now pay an annual return to the government on about \$1.2 billion of funds already received from the federal government (at an interest rate equal to the average interest cost of the Treasury's publicly held obligations); also \$1 billion of the taxpayers' investment will be amortized and reimbursed to the Treasury over a 54-year period. The committee stated, "Although the utilities have managed to contain the TVA at this time, nevertheless acceptance of the principle of self-financing is in our opinion a serious defeat to the private enterprise system."

TVA has already let contracts for a \$100 million steam plant to be located near Paradise, Kentucky. The initial unit will be rated at 600,000 kilowatts and cost will average \$133 per kilowatt. This will

bring total capacity to over 12 million kilowatts, equivalent to about 8 per cent of total U. S. generating capacity. Seventy per cent of this will represent steam generation and TVA will thus be the largest U. S. owner of steam-generated capacity—despite the fact that originally the enterprise was intended to construct only hydro facilities as an incident to its primary purpose of flood control and navigation. TVA will continue to enjoy sizable tax and other benefits: TVA and its distributors pay out less than four cents of their revenue dollar "in lieu of taxes" compared with some 23 cents for private utilities.

WHILE it has long been known that public power projects are subsidized

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FINANCIAL NEWS AND COMMENT

by tax savings, the committee emphasized a new form of hidden subsidy, low interest costs. Although the Rural Electrification Administration has virtually completed its original project of helping to electrify farms (97 per cent of which are now supplied with electricity), REA co-operatives are still permitted to borrow from the Treasury at 2 per cent interest, even though the Treasury has to pay as high as 5 per cent to obtain these funds. The REA's are now expanding into suburban, commercial, and industrial business as well as into generation and transmission of electricity. (The report might also have mentioned their activity in the telephone business.) The new obligation of TVA to pay the going rate of interest should set a pattern for all government lending agencies, including REA.

Other big projects would also make use of the interest subsidy. The new proposals to build the 550,000-kilowatt Passamaquoddy tidal project would cost over \$1,200 per kilowatt for dependable power. The committee estimates that allowing for amortization of the investment in fifty years, the cost of power would be 8.4 mills per kilowatt in the U. S., even without any allowance for displaced taxes and assuming an interest cost of only 2½ per cent.

Obviously the project would be quite dependent on government subsidies and even then would be uneconomic.

ANOTHER obviously subsidized project which has made some progress in Congress is the Burns Creek hydro project in the Upper Snake river valley of southeastern Idaho, about 30 miles downstream from the Palisades dam of the Bureau of Reclamation. It would have 90,000-kilowatt capacity and cost an estimated \$48.8 million, or about \$542 per kilowatt. Even with a subsidized rate of

3 per cent, revenues would fall short of meeting annual interest cost.

The IBA committee points out that this project is entirely unnecessary as there is no shortage of electricity in the area: The two private utilities in the area are building large facilities to meet every foreseeable demand. But, the committee points out, the public power bloc does not *recognize* private power. Preference customers such as co-ops must have all the *public* power they can use and *private power cannot be substituted*. "In other words," the committee states, "the federal government should undertake the responsibility of meeting all requirements of preferential customers for cheap, subsidized power even though there is an adequacy of privately generated power available at regular rates."

SENATOR Neuberger has introduced a bill to establish a Bonneville Power Corporation, which like TVA would be able to build steam as well as hydro generating plants. The Senator stated, "The failure to press ahead with the vital upstream storage projects like Hell's Canyon has crippled the firm-power capability of the system and destroyed its ability to serve the industrial loads on which most of the region's economic growth must be founded." The corporation would initially obtain an interest-subsidized \$1.1 billion loan from the Treasury "at a rate of interest equal to the average rate of outstanding Treasury obligations at the beginning of the fiscal year." In other words, since many Treasury obligations were issued during the long period of cheap money, the new project would automatically benefit by this historic fact. Obviously, this might well involve a subsidy of some \$10 to \$20 million a year for abnormally low interest cost (editorial comment).

PUBLIC UTILITIES FORTNIGHTLY

Rates of Return Allowed In 1958-59 Decisions

ARTHUR ANDERSEN & Co. has issued Supplement No. 3 to its previous bulletin, entitled "Return Allowed in Public Utility Rate Cases," covering decisions in 1958 and part of 1959. As it points out, rate of return itself is but one factor in the determination of rates and is meaningless unless considered in connection with the type of rate base—original cost, fair value, reproduction cost, etc. Of course there are other factors also, such as a mid-term (average) or year-end rate base, treatment of new construction, etc. In considering net operating income there are also many special factors, an important one being whether tax deferrals have been normalized, or allowed to "flow through" into net. In a typical

case (not cited by Arthur Andersen) the earned return was increased from 5.7 per cent to 6.4 per cent when earnings were adjusted to a flow-through basis.

It may be of interest to tabulate the allowed returns in the Andersen bulletin by type of rate base, using only two classifications, "fair value" and "all other" (principally net original cost). Following are the results:

Year		Aver. Of Return	No. of Cases
1958	Fair Value Rate Base ..	5.91%	21
	Other Rate Bases	6.22	49
	Total	6.13%	70
1959	Fair Value Rate Base ..	5.68%	12
	Other Rate Bases	6.07	23
	Total	5.94%	35

The figures indicate that commissions

NOVEMBER UTILITY FINANCING PUBLIC OFFERINGS OF ELECTRIC AND GAS UTILITY SECURITIES

Date	Amount (Mill.)	Description	Price To Public	Under- writing Spread	Offer- ing Yield	Aver. Yield For Securities Of Similar Quality	Moody Rating	Success Of Offer- ing
<i>Bonds & Debentures</i>								
11/18	\$62	Transwestern Pipeline Units* Sub. Deb. 5s 1969 and 2 million shs. common stock	153.75	4.60N	—	—	—	d
11/24	15	Potomac Electric Power 1st 5½s 1994	102.44	.68C	5.10%	4.65%	Aa	b
11/25	16	Gulf States Utilities 1st 5½s 1989 ...	102.60	.77C	5.08	4.65	Aa	d
<i>Preferred Stock</i>								
11/10	30	Tennessee Gas Transmission 5% 2nd Conv. Pfd.**	100.00	3.00N	5.00	—	—	a
11/20	4	Piedmont Natural Gas \$5.50 (S.F.) Conv. Pfd.	100.00e	N	5.50	—	—	—
<i>Common Stocks—Offered to Stockholders</i>								
11/5	12	San Diego Gas & Electric	23.40	.19N	4.79	—	7.41%	a
11/14	1	Colorado Central Power	20.00	.65N	3.90	—	5.71	f
11/18	2	Housatonic Public Service	23.65	.17N	5.92	—	9.35	f
11/21	12	New York State Elec. & Gas	25.50	.21N	4.70	—	7.63	f
<i>Common Stock—Offered to Public</i>								
11/19	6	Atlantic City Electric	29.00	1.05N	3.79	—	4.93	a

*A unit consists of \$100 debenture and five shares of common stock. After October 1, 1961, the company may issue shares of 5½ per cent preferred in payment for debentures. **Each preferred share is convertible into 2.67 shares of common to November 2, 1964; conversion changes in later years. C—Competitive. N—Negotiated. a—The issue was reported well received. b—The issue was reported fairly well received. d—It is reported the issue sold slowly. e—Offered on the basis of one share for each 35 shares common held. Convertible into common at \$18.50 to December 1, 1964, and at higher prices thereafter. f—Judging from the value of the rights, the offering was probably successful.

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in fair value states do not give the utilities the full benefit of the higher rate base, but "hold back" by lowering the rate of return; in general, however, the advantage of a fair value rate base would seem to outweigh the lower return.

ARTHUR ANDERSEN & Co. points out that while the doctrine of original cost was adopted by many state commissions in the late 1930's and throughout the 1940's, since 1950 there has been a noticeable trend back to fair value, largely as a result of court decisions which overruled the commissions.

For example, last February the Arizona supreme court gave a fair value decision in the Arizona Water Company case, the commission's decision having employed net original cost as the rate base. In the appeal, the Maricopa county trial court stated, "The commission failed to determine the fair value of the company's properties devoted to the public

use. . . ." and reversed the commission's order. The supreme court affirmed the trial court, stating "The commission must establish the rate base on the basis of fair value and that alone." (27 PUR3d 412.)

The 1959 decisions divided by utility groups give the following averages:

	Number of Decisions	Average Return Allowed
Electric	14	5.85%
Gas	6	6.01
Telephone	12	6.10
Water	2	5.65
Total	34	5.95%

Trends in Atomic Energy

THE nuclear industry committee of the IBA recently submitted a report on atomic energy developments, the high lights of which may be summarized as follows:

Regarding fusion, the construction of large mechanical devices for conducting research has been slowed and the current



CALENDAR OF PROPOSED UTILITY OFFERINGS

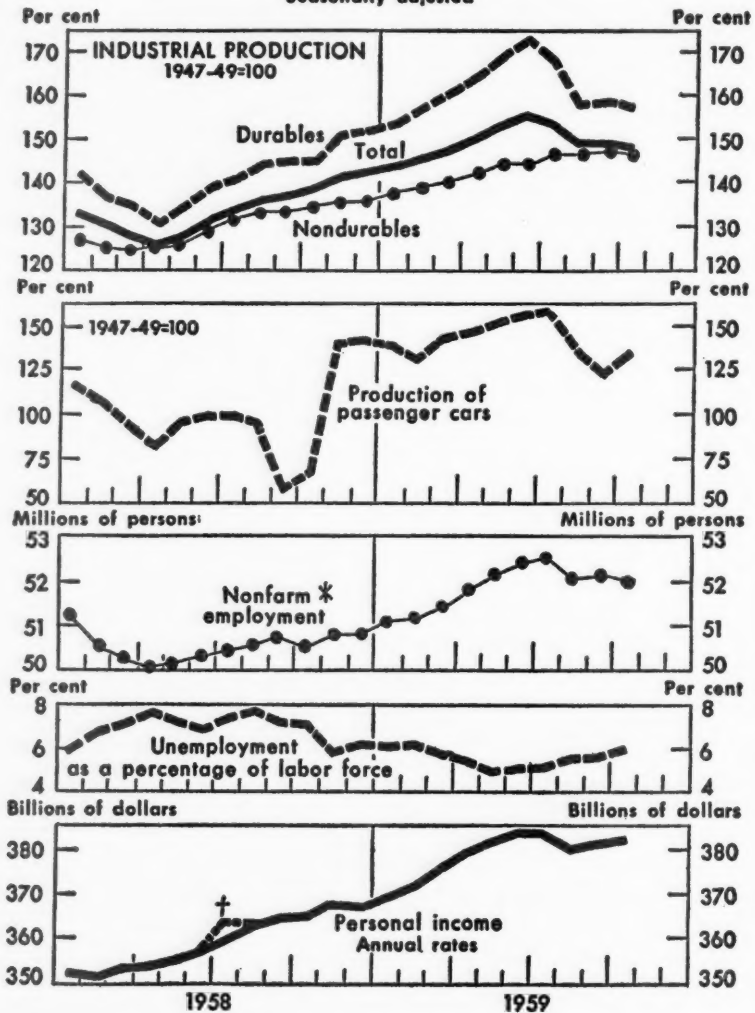
First Quarter of 1960

Date of Bidding Or Sale	Approx. Amount (Millions)		Method Of Offering	Moody Rating*
<i>Bonds and Debentures</i>				
1/6	\$20	Kansas City Power & Light	C	Aaa
1/11	15a	Washington Water Power	N	A
1/19	8	Louisiana Gas Service	C	—
1/	5	Hawaiian Telephone	—	—
1/	25	Connecticut Light & Power	N	Aaa
2/16	72	Pacific Tel. & Tel.	—	Aa
3/	12	Indianapolis Power & Light	C	Aa
3/1	10	General Telephone of Florida	N	—
	30	Commonwealth Edison	C	Aaa
	60	Southern California Edison	C	Aa
<i>Preferred Stocks</i>				
1/12	15	Northern Illinois Gas	N	
2/24	20	Brooklyn Union Gas	C	
	12	Arizona Public Service	N	
<i>Common Stock—Offered to Stockholders</i>				
1/4	27	General Public Utilities	**	
2/2	6	Tampa Electric	N	
<i>Common Stock—Offered to Public</i>				
1/19	10	Kansas Gas & Electric	C	
1/	2	Savannah Electric & Power	C	

C—Competitive, N—Negotiated, a—Includes \$10 million first mortgage bonds due 1990 and \$5 million S. F. debentures 1985. *Preliminary, or rating of similar issues. **Merrill Lynch will act as dealer-manager.

PUBLIC UTILITIES FORTNIGHTLY

Chart I
MEASURES OF ECONOMIC ACTIVITY
Seasonally adjusted



* United States Bureau of Labor Statistics series.

† Reflects payment of retroactive salary increases to Federal Government employees.

Sources: Board of Governors of the Federal Reserve System, United States Bureau of Labor Statistics, and United States Department of Commerce.

Source, Federal Reserve Bank of New York Monthly Review

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FINANCIAL NEWS AND COMMENT

stress is on learning about the behavior of hot plasma. The British have also abandoned some of their equipment. AEC research funds will, however, remain around \$36 million in 1960, about the same as in 1959.

Total installed nuclear power capacity ten years from now is estimated at 20 million kilowatts, or about 4 per cent of total electrical capacity of 500 million kilowatts. The commission's 1960 budget will remain around \$2.7 billion, including \$700 million for raw materials. (Production and reserves of uranium now appear to be ample, especially in Canada where there is some concern about future U. S. demands.) It includes \$400 million for the reactor program—\$90 million for government work on various types of reactors and \$20 million to assist in the civilian construction of reactors, with the balance going to develop Army and Navy reactors, aircraft and missile propulsion, etc. With the present more harmonious relationship between the AEC and the congressional Joint Committee, it is possible that increased funds may be obtainable next year to induce more hesitant utilities to engage in construction of new types of reactors.

THE utility companies are now concentrating their major efforts on heterogeneous reactors using solid fuel elements, since homogeneous reactors (in which the fissionable material is in the form of a solution or slurry) present greater technical problems than anticipated. The committee reports a trend toward the use of thorium (easily transmuted into uranium-233, similar to uranium-235) and plutonium (obtained artificially by bombarding uranium-238). While there will be plenty of uranium to take care of our needs for some years, development of "breeder" reactors, such as the Enrico Fermi plant in Mich-

igan, will eventually prove valuable.

Atomic reactors with conservative temperatures have a low overall thermodynamic efficiency of only about 25 per cent compared with 40 per cent for the most modern fuel-burning plants.

Citizens Utilities—An Interesting Case Study

THE Harvard Graduate School of Business Administration has recently completed an 18-page "case study" of Citizens Utilities Company for use in one of its advanced courses in corporate finance. This is a rather unique, medium-sized utility company which controls various kinds of utility properties serving over 250 communities in a number of states scattered over wide areas. The company has thus been able to obtain the broad diversification sought by the early holding company systems.

In 1945 a group headed by Richard L. Rosenthal, president, acquired control of the property following an 18-year period of bankruptcy and moribund operations. He embarked upon an aggressive program of expansion and diversification, new acquisitions being carefully screened from the large number of available properties, the basis of selection being mainly whether improvement in share earnings could be effected. The latter depended on an adequate rate of return and efficient financing methods. As a result profit margins more than doubled during 1945-58, net income as a per cent of revenues increasing from less than 8 per cent to more than 16 per cent; and return on assets increased from about 5.2 per cent to nearly 7 per cent.

THE company's major finance policy has been simple and effective—to retain a substantial percentage of earnings in the business and thus avoid equity fi-

PUBLIC UTILITIES FORTNIGHTLY

nancing. This was accomplished largely by the use of stock dividends (which also helped maintain a good equity ratio) in lieu of cash payments. Originally, dividends on one class of common stock were paid both in cash and stock; later the stock was divided into A and B shares, one paying cash and the other stock.

As proof of the success of Mr. Rosenthal's policies, a chart in the Harvard study shows an increase in the price of Citizens' stock of nearly 1,100 per cent during 1945-58, compared with about 120 per cent for the Moody average of 24 operating utilities; this was accomplished not only by a steady increase in share earnings, but also by improving the price-earnings ratio from 4.8 in 1947 to around 18 per cent in 1958.

New Jersey Leans toward "Flow Through"

THE trend in New Jersey seems to be toward use of "flow through" of deferred taxes resulting from use of accelerated depreciation. The state commission has favored flow through in several small water cases. The two subsidiaries of General Public Utilities have been using it for some time; this year they requested and received commission approval for this method of bookkeeping. Atlantic City Electric has now adopted flow through and in the September quarter earnings were adjusted to the new basis retroactive to January 1st. (See note 5, page 22, of the recent prospectus on the common stock financing.)

RECENT FINANCIAL DATA ON GAS UTILITY STOCKS

Annual Rev. (Mill.)		12/9/59 Price About	Divi- dend Rate	Approx. Yield	Recent Share Earnings	% In- crease	Aver. Incr. In Sh. Earn. 1955-58	Price- Earnings Ratio	Divi- Pay- out	Approx. Common Stock Equity	
Pipeline and Integrated Systems											
\$ 5	O	Ala. Tenn. Nat. Gas	26	\$1.20(k)	4.6%	\$1.53Se	13%	11%	17.0	78%	40%
205	S	American Nat. Gas	58	2.60(L)	4.5	4.27Se	12	7	13.6	61	39
76	A	Arkansas Louis. Gas	63	1.20	1.9	3.19Se	44	55	19.8	37	50
55	O	Colo. Interstate Gas	44	1.25	2.8	2.84Se	NC	8	15.5	44	24
427	S	Columbia Gas System	20	1.00	5.0	1.33Se	D12	18	15.0	75	42
7	O	Commonwealth Gas	6	—	—	.49De	22	—	12.2	—	77
19	O	Commonwealth N. G. . . .	23	1.00	4.3	1.57Se	D4	10	14.7	64	47
11	S	Consol. Gas Util.	20	.90(b)	4.5	1.60Jy	3	7	12.5	56	57
304	S	Consol. Nat. Gas	47	2.10	4.5	3.09Se	D3	9	15.2	68	60
19	O	E. Tenn. Nat. Gas	10	.60	6.0	.85Se	D8	16	11.8	71	25
368	S	El Paso Nat. Gas	31	1.30	4.2	1.61De	D2	—	19.3	81	17
50	S	Equitable Gas	35	1.75	5.0	2.62Se	19	5	13.4	67	44
36	O	Houston N. G.	30	.80	2.7	1.45Jy	D14	9	20.7	55	20
21	O	Kansas Nebr. Nat. Gas . .	43	1.80(f)	4.2	3.28Se	24	6	13.1	55	36
113	S	Lone Star Gas	38	1.80	4.7	2.32Se	2	8	16.4	78	43
77	S	Miss. River Fuel	33	1.60	4.8	2.08Ma	NC	5	15.9	77	48
28	S	Montana Dakota Util. . . .	29	1.20	4.1	1.72Se	5	12	16.9	70	29
26	O	Mountain Fuel Supply . . .	24	1.20	5.0	1.76Je	7	3	13.6	68	51
94	S	Natl. Fuel Gas	24	1.15	4.8	1.91Se	34	6	12.6	60	56
139	S	Northern Nat. Gas	30	1.40	4.7	1.85Se	9	8	16.2	76	33
43	S	Oklahoma Nat. Gas	27	1.24	4.6	1.95Oc	15	5	13.8	64	34
121	S	Panhandle East. P. L. . . .	47	1.80	3.8	2.74De	—	2	17.2	66	40
15	O	Pennsylvania Gas	25	1.20	4.8	2.13De	D2	20	11.7	56	59
188	S	Peoples G. L. & Coke . . .	61	2.30	3.8	3.87Oc	23	4	15.8	59	41
26	O	Pioneer Nat. Gas	41	1.60	3.9	2.10De	D1	9	19.5	76	43
104	S	Southern Nat. Gas	37	2.00	5.4	1.63Se	D14	—	22.7	123	43
41	O	Southern Union Gas	24	1.12	4.7	1.40De	D9	8	17.1	80	27
402	S	Tenn. Gas Trans.	31	1.40	4.5	1.72Oc	4	13	18.0	81	21
266	O	Texas East. Trans.	28	1.40	5.0	1.97Se	D24	13	14.2	71	21
104	S	Texas Gas Trans.	31	1.40	4.5	2.15Se	14	3	14.4	65	31
115	O	Transcont. Gas P. L. . . .	27	1.20(b)	4.4	1.50Se	3	13	18.0	80	19
318	S	United Gas Corp.	34	1.50	4.4	2.39Se	D1	4	14.2	63	42
Averages				4.4%		5%	9%	15.7	68%		

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Annual Rev. (Mill.)	(Continued)	12/9/59 Price About	Divi- dend Rate	Approx. Yield	Recent Share Earnings	% In- crease	Aver. Incr. In Sh. Earn. 1955-58	Price- Earnings Ratio	Div. Pay- out	Approx. Common Stock Equity
<i>Retail Distributors</i>										
32 S	Alabama Gas	30	\$1.60	5.3%	\$1.99Je	D27%	11%	15.1	80%	36%
57 O	Atlanta Gas Light	36	1.80	5.0	2.28Se	D11	6	15.8	79	39
3 O	Berkshire Gas	17	1.00	5.9	1.30Au	7	6	13.0	77	41
7 A	Bridgeport Gas	32	1.68	5.3	2.23Se	10	7	14.3	71	46
6 O	Brockton-Taunton Gas ..	19	1.00	5.3	1.30De	10	18	14.6	77	46
79 S	Brooklyn Union Gas	28	1.20	4.3	1.63Se	1	8	17.2	73	44
41 O	Central Elec. & Gas	24	1.05	4.4	1.72Se	15	9	14.0	61	17
13 O	Cent. Indiana Gas	15	.80	5.3	.75Se	D33	13	20.0	107	57
6 O	Chattanooga Gas	4	—	—	.32Au	D36	—	12.5	—	44
15 O	Consolidated Gas	37	1.60	4.3	2.45Jy	D23	13	15.1	66	78
68 O	Gas Service	33	1.52	4.6	2.43Se	D9	11	13.6	63	36
9 O	Hartford Gas	40	2.00	5.0	2.45Je	16	—	16.3	82	51
3 O	Haverhill Gas	29	1.60	5.5	2.07Oc	1	11	14.0	77	53
20 O	Indiana Gas & Water ...	22	1.00(b)	4.5	1.50Oc	D2	9	14.7	67	45
52 S	Laclede Gas	20	.90	4.5	1.13Je	D17	5	17.6	80	34
6 O	Mich. Gas Utils.	25	1.05	4.0	1.48Se	22	4	16.9	70	34
44 O	Minneapolis Gas	31	1.50	4.8	1.96Se	14	5	15.8	76	46
17 O	Miss. Valley Gas	24	1.20	5.0	1.98Se	D15	7	12.1	61	34
6 O	Mobile Gas Service	26	1.10	4.2	1.25Se	D29	6	20.8	88	37
8 O	New Haven Gas	39	2.00	5.1	3.07De	30	11	12.7	65	67
15 O	New Jersey Nat. Gas ...	23	.90	3.9	1.33Je	D2	—	17.3	68	34
91 O	No. Illinois Gas	30	1.00	3.3	1.68Oc	20	—	17.9	59	54
10 O	North Penn Gas	12	.60	5.0	.91Je	13	10	13.1	66	60
18 O	Northwest Nat. Gas	17	.72	4.2	*1.25Se	33	—	*13.6	58	36
285 S	Pacific Lighting	48	2.40	5.0	2.58Se	D12	8	18.6	95	42
11 O	Piedmont Nat. Gas	16	.50	3.1	.73Se	D21	15	21.9	68	31
2 O	Portland Gas Lt.	17	.75(m)	4.4	2.31De	128	21	7.4	32	27
10 A	Providence Gas	10	.56	5.6	.64Jy	D1	5	15.6	88	50
4 A	Rio Grande Valley Gas ..	4	.16	4.0	.38Je	20	9	10.5	42	55
6 O	So. Atlantic Gas	14	.80	5.7	1.22Se	27	5	11.5	66	32
14 S	So. Jersey Gas	24	.90	3.8	1.26Je	9	14	19.0	71	50
34 S	United Gas Impr.	54	2.40	4.4	3.45Se	13	5	15.6	70	54
60 S	Wash. Gas Light	47	2.24	4.8	3.48Se	4	10	13.5	64	37
14 O	Wash. Nat. Gas	20	(g)	—	1.35Se	150	5	14.8	—	40
10 O	Western Ky. Gas	17	.60(i)	3.5	1.39Se	D5	3	12.2	43	41
Averages				4.5%		8%	10%	15.1	70%	



RECENT FINANCIAL DATA ON TELEPHONE, TRANSIT, AND WATER STOCKS

Annual Rev. (Mill.)		12/9/59 Price About	Divi- dend Rate	Approx. Yield	Recent Share Earnings	% In- crease	Aver. Incr. In Sh. Earn. 1955-58	Price- Earnings Ratio	Div. Pay- out	Approx. Common Stock Equity
<i>Communication</i>										
\$6,771 S	Amer. T. & T. (Cons.) ..	77	\$3.30	4.3%	*\$5.05Au	12%	4%	*15.2	65%	65%
329 A	Bell Tel. of Canada	45	2.20	4.9	2.46Se	7	—	21.0	93	64
47 O	Cin. & Sub. Bell Tel. ...	91	4.50	4.9	5.15De	5	—	17.7	88	76
255 A	Mountain Sts. T. & T. ..	167	6.60	3.9	9.51Se	4	4	17.6	69	76
354 A	New Eng. T. & T.	36	1.72	4.8	2.19Se	28	6	16.4	79	62
937 S	Pacific T. & T.	29	1.14	3.9	1.35Au	16	1	21.5	84	61
119 O	So. New Eng. Tel.	46	2.20	4.8	2.75Je	13	7	16.7	80	61
Averages				4.4%		12%	3%	18.0	80%	
<i>Independents</i>										
6 O	Anglo-Canadian Tel.	35	\$1.20	3.4%	\$3.13Se	1%	21%	11.2	38%	52%
45 O	British Col. Tel.	44	2.20	5.0	2.64Se	39	—	16.7	83	28

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Annual Rev. (Mil.)	(Continued)	12/9/59 Price About	Divi- dend Rate	Approx. Yield	Recent Share Earnings	% In- crease	Aver. Incr. In Sh. Earn. 1955-58	Price- Earnings Ratio	Div. Pay- out	Approx. Common Stock Equity
4	O Calif. Inter. Tel.	14	.70	5.0	.92Se	10	NC	15.2	76	24
22	O Calif. Water & Tel.	29	1.28	4.4	1.96Se	24	2	14.8	65	37
20	O Central Tel.	26	.88(b)	3.4	1.72Se	14	5	15.1	51	33
5	O Commonwealth Tel.	20	.90	4.5	1.35Je	D6	15	14.8	67	35
5	O Florida Tel.	29	1.00	3.1	1.21My	21	—	26.4	83	42
552	S General Tel. & Elec.	78	2.20	2.8	3.12Se	3	NC	25.0	71	34
21	O Hawaiian Telephone	21	1.00	4.8	1.26Oc**	12	4	16.7	80	48
8	O Inter-Mountain Tel.	16	.80	5.0	.91De	D3	—	17.6	88	54
23	S Rochester Tel.	27	1.00	3.7	1.59Je	16	4	16.9	63	33
11	O Southwestern St. Tel. ...	24	1.20	5.0	1.36Je	D14	—	17.6	88	37
38	O United Utilities	39	1.45	3.7	1.64De	6	3	23.8	89	36
16	O West Coast Tel.	25	1.20	4.8	1.54Se	30	—	16.2	78	32
255	S Western Union Tel.	48	1.40	2.9	1.89De	D7	—	25.4	74	85
Averages				4.1%		10%	8%	18.2	73%	
Transit Companies										
20	O Baltimore Transit	8	\$1.00	12.5%	\$.58De	D43%	—	13.8	172%	48%
12	O Cincinnati Transit	7	.30	4.3	.31De	D40	—	22.6	97	54
65	S Fifth Ave. Lines	14½	—	—	.02De	D99	—	—	—	75
305	S Greyhound Corp.	21	1.00(p)	4.8	1.23De	1	—	17.1	81	50
25	S Nat. City Lines	28	2.00	7.1	1.69De	D38	—	16.6	118	94
13	O Niagara Frontier Trans. .	11	.60	5.4	.10De	D87	—	—	—	67
17	A Pittsburgh Rys.	11	.25	2.3	.03Se	—	—	—	—	90
6	O Rochester Transit	6	.40	6.7	.86De	34	9	7.0	47	100
21	O St. Louis P. S.	11	1.00	9.1	.68De	4	—	16.2	147	97
14	S Twin City R. T.	8	—	—	.24De	D70	—	—	—	65
19	O United Transit	7	.70	10.0	.75De	D4	—	9.3	93	55
Averages				6.9%		D34%	—	13.5	108%	
Water Companies										
Holding Companies										
43	S American Water Works .	15	\$.60	4.0%	\$1.32Se	37%	—	11.4	45%	19%
Operating Companies										
5	O Bridgeport Hydraulic ...	32	\$1.70(f)	5.3%	\$1.75De	D15%	2%	18.3	97%	53%
16	O Calif. Water Service ...	26	1.20(j)	4.6	1.71Oc	8	1	15.2	70	36
4	O Elizabethtown Water ...	50	2.00	4.0	3.78De	D3	11	13.2	53	59
11	S Hackensack Water	48	2.00	4.2	3.29De	D5	—	14.6	61	35
9	O Indianapolis Water	24	1.00	4.2	1.22De	D4	5	19.7	82	36
6	O Jamaica Water	41	2.20	5.4	3.21Se	D4	1	12.8	69	27
5	O New Haven Water	67	3.40	5.1	3.32De	9	5	20.2	102	61
2	O Ohio Water Service	28	1.50(b)	5.4	1.75Se	7	—	16.0	86	31
9	O Phila. & Sub. Water	50	1.60(e)	3.2	2.75Je	D7	—	18.2	58	27
2	O Plainfield Un. Water	62	3.00	4.9	4.31Ma	D3	3	14.4	70	64
5	O San Jose Water	31	1.30(f)	4.2	2.36Oc	30	12	13.1	55	41
11	O Scranton-Springbrook ...	23	1.00	4.3	1.63Se	4	4	14.1	61	25
5	O South. Calif. Water	20	1.00	5.0	1.32Se	20	6	15.2	76	33
4	O W. Va. Water Service ..	21	.68(d)	3.2	1.66Se**	7	—	12.6	41	18
Averages				4.5%		3%	4%	15.5	70%	

A—American Stock Exchange. O—Over-counter or out-of-town exchange. S—New York Stock Exchange. Ja—January; F—February; Ma—March; Ap—April; My—May; Je—June; Jy—July; Au—August; Se—September; Oc—October; N—November; De—December. NC—Not comparable. NA—Not available. D—Decrease. *On average shares. **Includes tax savings from accelerated depreciation. (a) Adjusted to eliminate 13 cents per share of nonrecurring tax savings. (b) Also 20 per cent stock dividend January 15, 1960. (d) Also 1 per cent stock dividend quarterly. (e) Also 3 per cent stock dividend January 7, 1960. (f) Includes extras. (g) Five per cent stock dividend April 10, 1959. (i) Also 5 per cent stock dividend December 29, 1958. (j) Also 5 per cent stock dividend March 19, 1959. (k) Also 20 per cent stock dividend March 9, 1959. (L) Also 10 per cent stock dividend June 10, 1959. (m) Also 10 per cent stock dividend January 15, 1960. (n) Excludes profit realized on sale of Los Angeles Transit \$3.81 per share. (p) Also 5 per cent stock dividend June 30, 1959.



What Others Think

Capitalization under the Holding Company Act

DONALD C. COOK and Herbert B. Cohn have collaborated in the writing of an article, entitled "Capital Structures of Electric Utilities under the Public Utility Holding Company Act." This paper was published in the October, 1959, issue of the *Virginia Law Review*.

Both authors are officers of the American Electric Power Service Corporation—Mr. Cook, who will be readily recalled as the former chairman of the Securities and Exchange Commission, is the company's executive vice president, and Mr. Cohn is the company's vice president and general counsel.

The authors take note of the projected growth of the electric industry and comment that the cost of capital to finance the expansion is directly related to the kinds of securities which the Securities and Exchange Commission permits the utilities to issue.

The phrase "in the public interest or for the protection of investors or consumers" appears, in whole or in part, 78 times in the Public Utility Holding Company Act. The authors comment that the striking thing about the act is its flexibility, which is more akin to a charter or constitution than to a rigid code of regulations. The flexibility is of greatest importance in the regulation of the capital structures of electric utility companies

subject to the Holding Company Act. The authors believe that the challenge which faces the electric industry makes it essential that regulation in the field of capital structure be carried on with intelligence and imagination.

In the twenties and thirties many holding company systems had built up a most complex capital structure which led to financial disasters. The article states that from September 1, 1929, to April 15, 1936, no less than 52 public utility operating subsidiaries went into bankruptcy or offered readjustment plans after defaulting on interest payments. This represented about \$597 million of securities in the hands of the public. During this same period 53 holding companies went into bankruptcy or receivership and another 23 holding companies defaulted on interest payments and were obliged to offer readjustment plans.

AGainst this background Congress, in §§ 6 and 7 of the act, set forth the general standards for the security structures of holding company systems.

In § 6 Congress requires that unless the commission permits a declaration to become effective in accordance with § 7, no registered holding company or subsidiary company shall (a) issue or sell any security of such company, or (b) exer-

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cise any privilege or right to alter the priorities, preferences, voting power, or other rights of the holders of an outstanding security.

By the terms of § 7 a security must be either (1) a common stock having par value and being without preference as to dividends or distribution over, and having at least equal voting rights with, any outstanding security of the issuer; (2) a secured bond; (3) a guaranty of, or assumption of liability on, a security of another company; (4) a security to be issued or sold solely for the purpose of refunding a security of the issuer or for effecting a merger, consolidation, or reorganization; (5) a security to be issued or sold solely for the purpose of financing the business of the issuer as a public utility company; (6) a security to be issued or sold solely for the purpose of financing the business of the issuer when it is neither a holding company nor a public utility company; (7) a security to be issued or sold "for necessary and urgent corporate purposes."

DURING the early days of the Holding Company Act, abuses uncovered by the Federal Trade Commission stimulated the commission to place major emphasis on simplification of capital structures, decreasing debts, and increasing equity ratios.

The commission permitted the issuance of securities, in some early cases, in spite of excessive debt in the capital structure. Such transactions were permitted since the commission felt that certain protective provisions, which it had imposed, would bring about eventual improvement.

Messrs. Cook and Cohn state:

Indicative of its flexibility are numerous cases in which the commission has approved the initial capital struc-

tures of utility companies in the belief that improvement could be expected for other reasons, despite the fact that the debt-equity ratios were not consistent with the commission's general policy. There have also been unusual cases where substantially all of the output of the particular company was for the benefit of a government agency in which the commission has departed from its policy, even though no improvement in the capital structure could be foreseen.

The authors also observe that the commission has most often taken the position of attempting to strengthen the terms of a proposed security issue rather than to reject the issue outright.

IT has been noted by the commission that the act since 1935 has had the desired results and that the electric utility industry has made fundamental strides toward basic financial soundness. However, conditions have changed and the authors suggest that it is now necessary to look at the future of regulation of capital structures and what forms these regulations should take.

Authors Cook and Cohn feel that it is no exaggeration to state that the present 52 per cent corporate tax rate has had a "radical" effect on the basic concept of what constitutes an appropriate capital structure for a regulated utility.

Among the changes that have taken place since 1935 are the following: (1) Elimination of "unsound asset values." (2) Improvement of depreciation reserves. (3) Improvement in capitalization ratios. (4) Changes in coverage of interest and preferred dividend requirements. (5) Development of protective provisions for bonds and preferred stock. (6) Change in federal corporate income

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tax rates. (7) Decline of the market for utility preferred stock.

In relation to consumer interests the authors state:

... Obviously, the consumer interest in low rates can best be served by adopting the capital structure that involves the lowest capital costs consistent with financial soundness. So far as the investor is concerned, he is certainly better off if his company can produce and sell more electric power at lower rates than if rates go up and volume falls. Between 1946 and 1958, class I railroads experienced an increase of 49 per cent in average revenue per passenger mile, but a decrease of 64 per cent in total revenue passenger miles. In other words, volume fell while rates rose. The result was inevitable—aggravated and prolonged financial difficulties. The importance of this experience in a regulated industry cannot be overemphasized. There is no reason to believe that the electric power industry would be immune from similarly damaging consequences should it fail to exert every effort to provide expanding service at the lowest feasible price.

It is noted that the Holding Company Act does not give the commission jurisdiction over utility rates; however, it does direct the commission to afford protection to consumers, including pro-

tection against uneconomic financial costs. The authors feel that the commission must take into consideration corporate tax rates and the fact that capital structure requirements were produced when property accounts were overstated and depreciation reserves were inadequate. These changes (related to the views on capital structure) must be considered if the utility companies are to meet the demands of the 1960-70 growth period.

The conclusion reached by the authors is that the commission need not depart from the procedures developed in the past. However, there must be an awareness of changing circumstances, all of which are contemplated by the basic flexibility of the act itself.

As is so often true, the merits of a statute depend as much on the administration of the act as on the act itself.

AUTHORS Cook and Cohn, in their conclusion, urge that the commission give consideration, in determining capital structure, to the changed circumstances in the fields of sound asset values, adequate depreciation reserves and accruals, greater interest coverage, and higher federal income taxes.

In view of the numerous projections of electric utility growth, it would seem surprising if the commission failed to provide a climate under which the electrical utilities can and will continue to flourish.

—C. M. B.

Community Prosperity and Utilities

How much does a utility contribute to the economic well-being of the communities it serves?

Plenty, according to Robert A. Hornby, president of Pacific Lighting Corporation,

who recently spoke to the Los Angeles Society of Security Analysts.

Since World War II, Hornby said, \$462 million has been pumped into the southern California economy as a result

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of expansion of facilities of three Pacific Lighting companies serving the area.

In addition, \$53.3 million is being provided in annual payrolls to gas company employees; \$4 million in current yearly dividends to southern California shareholders; and \$22.7 million in annual ad valorem taxes and franchise payments to 368 southland communities in which the utilities do business.

And most of this money, Hornby said, has come from the investing public outside the area. "It has been many years," he declared, "since California could finance the growth of the Pacific Lighting system—or for that matter the growth of any other large utility system in the state."

Pacific Lighting plant properties, he reported, now stand at \$782 million. The three PL subsidiaries—Southern California and Southern Counties Gas companies and Pacific Lighting Gas Supply Company—currently have more than 24,300 miles of pipeline which in the twelve months ended September 30th of this year handled sales of 484 billion cubic feet of gas to a total of 2,360,000 customers: homes, commercial establishments, and industries.

"This yearly send-out of the Pacific Lighting companies represents the single largest source of energy in southern California," Hornby declared.

By 1975, he said, the integrated system must be prepared to serve over 4.5 million meters, while plant properties will have passed the \$2 billion mark.

These totals, Hornby said, are merely indications of growth. In the utility business, the question of whether growth is salutary or harmful is really academic. "We must serve those who wish service and can meet the modest prescribed rules. Suffice it to say, we have challenges and

problems, but what is most important we have opportunities."

He characterized natural gas as a "victim" rather than a "culprit" in what he called "this era of inflation." He said:

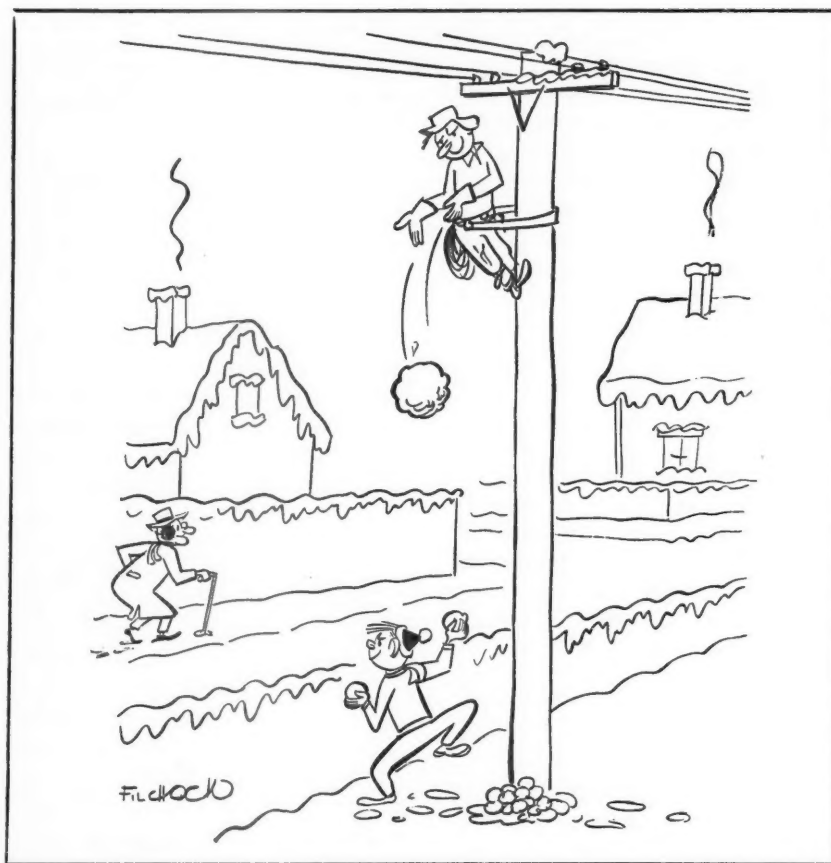
Although the subsidiaries periodically find it necessary to apply for upward adjustments in rates, the price of gas to the customer since 1939 has gone up far less than other daily necessities. The food we eat costs 163 per cent more than it did in 1939 but, if, like most people in Los Angeles, you cook your food with gas, it costs you only 41 per cent more to do so today. Meanwhile, over the same period in the greater Los Angeles area, all consumer commodities—the necessities of life—have gone up 107 per cent.

He reported that since 1939 the overall average cost of gas to the Pacific Lighting system has increased 278 per cent compared to the 41 per cent increase at the meter of the system's firm customers. "This comparatively low increase in price to the customer," he said, "has been in the face of substantial increases in wages, taxes, and costs of materials generally."

CITING a 1958 survey of the Pacific Lighting companies' service area, which showed better than 99.5 per cent of residential customers use gas for home heating, 97 per cent for water heating, and 90 per cent for cooking, Hornby said that this high saturation "has not been due to the absence of vigorous competition." He termed the area as one of the foremost natural gas markets in the nation.

He also said he disagreed with those in eastern investment circles who have said local gas companies' success in market saturation shows that they have approached the limits of their growth potential. He stated:

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This, is almost like saying that there is no growth potential in the food business because too many people are already eating so well. The fact is the local gas companies are not only adding new customers and gas appliances to their lines but as time goes on there is a growing number of customers per mile of main and a growing volume of gas sold per mile of main.

He reported progress on two new transcontinental pipeline projects which, he said, will gradually increase current daily contractual deliveries of out-of-state gas

of 1,042,000,000 cubic feet to 2 billion cubic feet of gas per day, by 1964.

HORNBY predicted that Canadian gas will find its way into California in large quantities in the future. "Not only the oil and gas companies but the governments of Canada are anxious to sell gas and oil to this country and the U. S. West coast offers both a reachable and rapidly growing market." He added that 150 million cubic feet of gas from Canadian production presently is scheduled to reach the southern California market by 1964.

A New Biography of Thomas Edison

A CAUSTIC history professor once commented that a man's character would be treated kindly by historians if he had the good sense to die before he began to inherit his own earlier sins. Although this is a dilettante's statement there is a grain of truth in it.

Thomas A. Edison did not take the history professor's advice. He stayed around for a good many years, and perhaps inherited some of his own earlier mistakes, and still he stands as a considerable man in America's history.

In the new book *Edison* one is constantly impressed by the author Matthew Josephson's frank chronicling of Edison's headstrong evaluations, but one is also impressed by the strength of character that comes through these defects. The author seems to have taken great care to document the life of America's most notable inventor with footnotes and an extensive reference list.

Thomas Alva Edison was born in Milan, Ohio, on February 11, 1847. He died on October 17, 1931. The eighty-four years of his life spanned a period of American history that saw this country rise to first place in the family of nations. A large part of this national advance was due to our expanding industrial development and a good measure of this was bound up with the life of Edison.

Edison was first and foremost a "practical" inventor. He himself saw little advantage to pure research. In this last half of the twentieth century we have heard increased clamor for more pure research but Edison was inventing in a time when products rather than research were important. His approach to any given problem was empirical—you sought a specific substance to do a job by the trial-and-error method. It was time-consuming, but in the

days when the background of scientific information was meager it was a method that got results.

THE early history of Mr. Edison is too well-known even to summarize. Suffice it to say that his formal education was meager, his curiosity insatiable, and his ability to work prodigious.

At sixteen Edison joined the group of wanderers known as telegraphers. The telegraph had become the mainstay of communications, and telegraph operators, particularly with the military, were in constant demand. Mr. Josephson notes:

. . . In those days the strange new tribe of telegraphers were generally young men already noted for their nomadic or Bohemian habits, traveling light, pitching their tents for a brief season at one place, then journeying on to another that seemed to offer greener pastures. There were, to be sure, a few steady young operators who rose from the ranks to become industrial magnates, like Andrew Carnegie and Theodore Vail. . . .

Edison excelled as a telegrapher and it was during this period that he learned much of electrical circuits which proved of great value when he began experimenting with electric lighting systems. He seems never to have been at rest and his constant experiments soon had him in trouble with his employer.

His first major invention was a unison stop device that promptly brought stock tickers in brokers' offices into alignment with the central station transmitter. Edison received \$40,000 for this improvement and promptly spent the majority of the sum for additional scientific instruments.

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IN the spring of 1876 Edison began work on a laboratory at Menlo Park, New Jersey. This "factory" for inventions pointed the way toward the systematic research of the technological age. The author states:

... The significance of the Menlo Park laboratory was that its master worked with a whole team, comprising not only machinists and technical men but also several persons with formal scientific training. He still adhered to his cut-and-try methods. But at Menlo Park, industrial invention depended not on the insights of the shopworker alone, but on a careful comprehensive search by a whole team under him. . . .

The character of Thomas A. Edison has become embroidered with a great deal of folklore. This, however, is to be expected with any prominent figure. The same has happened to the character of Washington, Lincoln, etc., and it is even more likely to happen with a man who is an inventor. Invention, during Edison's life, still had some of the aura of mystery that surrounded magicians and wizards. Mr. Josephson's biography has done much to shake out these folk myths about Edison; however, the remaining character is still almost too fabulous to believe.

HERE was a man who invented the incandescent light, the mimeograph, the moving picture, the phonograph. He made numerous improvements on the telegraph, experimented with the extraction of rubber from goldenrod weed, dabbled in the extraction of low-grade iron ore, and improved the storage battery. His genius in the field of electricity enabled him to project the requirements for a lighting system in New York city—quite a feat when one considers that the total knowledge of the behavior of electricity was

limited at that time. With all his ability to see the whole problem he often took headstrong turns which resulted in financial grief or the limiting of the application of his inventions.

For years the phonograph was only seen as office equipment. Even after its entertainment value was understood, Edison persisted in the use of cylinder records when other companies had turned to producing discs. When alternating current began to replace the Edison-inspired direct current, he persisted in the belief that AC current was dangerous.

Mr. Josephson gives a fine picture of Edison as reflected in the bustling post-Civil War period. The growth of America during that era can only be compared with the industrial spurt that was felt at the end of World War II. It was a period that was "right" for an inventor with Edison's drive and ability. He saw America turn from a country lighted by oil lamps and torn by civil strife into a nation that was a world leader illuminated by his invention. Few men have lived to see their works bear fruition in so many fields and he was honored by both scientists and the heads of state.

EDISON's opinions on religion, education, and a host of other subjects were snapped up by the press and reprinted all over the world—often to the accompanying scorn of critics. (In the field of tart comments one cannot help but draw a comparison with the late architect Frank Lloyd Wright.) In his later years the press, as author Josephson points out in Chapter XXI, "canonized" Edison.

The new biography of Edison is a most interesting chronicle of a well-known inventor. Incidentally, and no less valuable, is its commentary on the birth of the electrical industry.

The "Edison system" of electrical dis-

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tribution was achieved after three years of trial and error. It included parallel circuits; durable, high-resistance lights; improved dynamos; underground conductor networks; a device for maintenance of constant voltage so that energy reached distant lamps evenly; safety fuses and insulating materials; and a lighting fixture with a "key" to turn it on and off. A professor, upon visiting Menlo Park in 1880, forecast that no such system was practical and that "all the copper in the world" would be needed to construct such a system. One can well understand the professor's skepticism since what Edison pro-

posed was not only new but huge in scope and planning. Such pronouncements by academic men perhaps illustrate why Edison had such little regard for formal education.

This publication will be of interest to the casual reader as well as to those persons who are involved in the myriad of things that the Wizard of Menlo Park investigated, improved, or invented.

—C. M. B.

EDISON, by Matthew Josephson, 511 pages, including index, reference notes. Price, \$6.95. McGraw-Hill Book Company, Inc. New York, New York.

Utilities Use Diesel Engines to Get Electricity

A RECENT article in *The Wall Street Journal* relates that diesel engines—like those that power railroad locomotives—are being given a new rôle as generators of electric energy. Maine Public Service Company in Presque Isle, Maine, has installed three units with a total power rating of 4,200 kilowatts at a cost of \$420,000. Philadelphia Electric Company is running a similar plant on test. Bangor Hydro-Electric Company has ordered four turbo-charged versions of these units—for a total capacity of 8,000 kilowatts—for delivery next year. A large western utility has several units on order.

The basic idea behind the use of these units is that they are readily portable and can be used by utilities for taking care of peak demands in certain areas of their systems. For example, C. Hazen Stetson, president of Maine Public Service, said that such stand-by equipment is important to his company in handling the short periods of peak demand, such as occur in the dark, cold days around Christmas. Since about 20 per cent of the company's total capacity is idle 98 per cent of the time, these new units afford an economical

way of meeting the brief peak loads. Top electricity demand is so limited in the course of a year that major additions to the company's conventional steam plants to handle such business is not always warranted, he indicated.

The *Journal* points out that electric utilities since World War II have spent whopping sums to build new plants to keep up with the rising demands for electricity. But in the summer months, when air conditioners operate, or around Christmas, they are still not equal to the short bulges of extra load.

These portable diesel generating units, being readily transportable, can be moved into areas where there is unusual load growth or abnormal peak demand due to special conditions. They eliminate the need for investment in additional transmission facilities.

THE electromotive division of General Motors Company conceived the idea for these units about five years ago and started promoting 1,000-kilowatt packages. GM is also offering new units with a capacity of 2,000 kilowatts each. Linked

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with a single control unit—which is 10 feet wide, 11 feet high, and 24 feet long (and weighing 20 tons)—the diesel plants come “on line” automatically when needed. It occurs in less than ninety seconds.

Electromotive is now offering units for amounts ranging from 2,000 kilowatts at \$211,000 to 8,000 kilowatts at \$664,000.

Richard L. Terrell, general manager of the division and a GM vice president, said his division is equipped to mass produce the units if demand warrants. He said he feels GM's generating units fill a special need of the utilities as the result of a post-war trend. The trend has been for bigger and bigger (from 50 megawatts to 75 and 100 megawatts, and, now—at least in design—300 to 500 megawatts) steam-powered generating plants. As the larger plants replace the smaller ones, the latter ones are not economical to maintain for just limited periods of peak demand, he contends. And thus, he said,

As these larger plants have been re-

placed by still larger ones, there is no place for the former big ones to be used economically. While in base load operations, a modern coal-fired steam turbine can produce a kilowatt of electricity more cheaply than a diesel engine, the reverse is true when the steam plant is taken off of base load and reduced to a plant factor of less than 40 per cent.

THE low investment per kilowatt is a big advantage which amounts to about \$100 per kilowatt. On a fixed cost basis, however, it amounts to about \$15 a kilowatt year as compared with about \$28 a kilowatt year for what has been considered conventional equipment, such as steam-powered plants, for this type of generating work.

Utilities can buy any number of diesel generating units they want, tying in three or four units with the big control units, which automatically bring the units on or off the system power lines. Active ordering on these novel generators just began to get under way in 1959.

Notes on New Publications

A UNIFORM PROCEDURE FOR USE IN THE EVALUATION OF NUCLEAR POWER REACTORS is the title of a 44-page manual just published by the Atomic Industrial Forum, the association of the nuclear industry. Its purpose was to meet the need for uniformly presenting design data pertaining to a reactor under evaluation, for outlining its anticipated cost performance, and for describing both the current state of its development and the additional development requirements. Primary use of the manual is to describe the first full-scale plant evolved from a reactor concept. But it may also be used to describe reactors at other stages of development such as a prototype plant or a second generation plant. Main objective is to provide a uniform basis for comparing the merits of different reactor concepts. The manual can also serve as a guide in making a critical evaluation of

the potential of any reactor concept. Electric utilities engaged in or considering atomic power plants should find the publication of considerable use. Available from Atomic Industrial Forum, 3 East 54th street, New York 22, New York. Price, \$1.50.

PENNSYLVANIA SECTION, *The New York Times*, November 29, 1959. The *Times* recently published a 36-page supplement devoted to the industrial advantages of the Keystone state. Pennsylvania has long ranked as one of the industrial centers of this nation and the *Times* outlines in some detail the diverse aspects of industrial development in this state. A large number of business firms—a number of these being public utility companies—sponsored advertisements which defrayed the cost of this effective presentation of the state's various advantages for business and industry.



The March of Events

Big Bonneville Surplus

ACCORDING to BPA Administrator Pearl, his agency will have an even larger power surplus than last year. He said that a tie line to California would be an excellent way of disposing of the extra electricity. This method has been proposed several times but no action has ever been taken on it.

Before BPA submits a plan to Congress on the power situation, Pearl said, governors of Northwest states and California will be asked for comments. A two-

day meeting has been planned at which methods for co-ordinating operations of federal and nonfederal power systems and the possible effects of proposed Canadian power developments on operations in this country will be considered. One of the reasons for slackening Bonneville sales, according to Pearl, is the new nonfederal plants in the area. The surplus of power will be so great, he predicted, that there will be more than enough for the area even under adverse conditions, until the winter of 1964.

Alaska

Eskimos Seek Alaska Gas

THE Eskimos have petitioned the federal government for the use of some of the natural gas which they contend is plentiful in their region. State Senator Hopson (Democrat) wrote President Eisenhower that government offices, agencies, and homes in Barrow, Alaska, use gas for both heat and light. He said his appeals and those of other government agencies for gas have been refused. He pointed

out there is a large gas pipe supplying gas to nearby federal offices that goes right by his home. The senator said coal in Barrow costs \$42 a ton, yet there is enough gas to supply a city of many thousands for many years. Population of Barrow is about 1,300 people and five out of six are Eskimos. U. S. Senator Gruening (Democrat, Alaska) is reported to be making efforts to get action on Hopson's request for gas relief.

Mississippi

Franchise Levy Upheld

A 7-to-2 decision handed down recently by the Mississippi supreme court

held a 1956 state franchise tax law to be constitutional. The high court's ruling came in an appeal by the Mississippi State

THE MARCH OF EVENTS

Tax Commission against Tennessee Gas Transmission Company, Houston, Texas, for 1956 and 1957 taxes.

The company has 923 miles of pipeline

and other equipment in Mississippi to help pump natural gas from fields in the states of Louisiana and Texas to markets in the North.

Missouri

Kansas Power Blackout

REMINISCENT of the summertime power blackout in New York city was the recent 51-minute power failure in Kansas City during the Christmas shopping season. It affected 250,000 power consumers throughout greater Kansas City. Three hospitals were blacked out, but they used emergency power. A few people were trapped in elevators. Traffic lights failed,

causing huge snarls of traffic in downtown areas. Much of greater Kansas City was blacked out. Cause of the power failure was a malfunction of a 61,000-volt switching structure at a generating plant in northeast Kansas City. Compared with the much longer blackout in New York city, the Kansas power episode was of minor proportions and had only annoying effect on the city's electric consumers.

New York

Electric Rate Cut Planned

THE Long Island Lighting Company has filed a proposed reduction of \$1.2 million in electric rates with the New York Public Service Commission. The lower rates would become effective January 1, 1960.

John J. Tuohy, president of the company, said the reduction would result in an annual saving of \$1.56 to \$6.36 to the average residential consumer, depending upon the extent to which electricity is used. Long Island has about 560,000 customers in Nassau, Suffolk, and Queens counties. The reduction would also apply to most commercial and industrial customers. The proposed reduction was made possible by a commission decision regarding accounting procedures on accelerated depreciation.

May Aid Private Buses

THE New York City Board of Estimate has begun study of a plan to give financial relief to seven private bus companies in New York city. The companies had asked the state to grant them a subsidy to compensate for their cut-rate school fares and to abolish or ease their franchise taxes and the city's 1 per cent utility tax.

The companies have said they need the money to reach a final contract settlement with the Transport Workers Union which represents 8,000 workers. Financial studies of the companies have been under way for several weeks.

The figures show that on the basis of 1958 records it would cost New York about \$5 million to grant the companies the relief they seek.

Pennsylvania

Gas Utilities Seek "Tax" Increase

THREE Pittsburgh area gas firms—Peoples Natural Gas Company, Equi-

table Gas Company, and Manufacturers Light & Heat Company—have asked the Pennsylvania Public Utility Commission for gas rate increases to cover Pennsyl-

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vania's new gross receipts tax on gas utilities. Peoples asked for a \$900,000 increase and Equitable Gas put in an application for \$722,600. The increase asked for by Manufacturers Light & Heat would be about 26 cents added monthly to the bill of 252,000 customers who use gas for home heating. Customers who do not use gas for home heating would only have to pay about 8 cents more. In November the public utility commission granted Peoples a gas increase amounting to \$1,893,000 annually and in the same month it granted a \$2,108,000 increase to Manufacturers, and last month another boost of \$898,700 annually.

Gas Tax Challenged

PENNSYLVANIA's new 14-mill gross receipts tax on natural gas companies has been challenged by the city of Philadelphia with a suit filed in Dauphin county court in Harrisburg. The tax, signed into law on November 21st and effective on January 1st, covers municipally owned utilities. The Philadelphia Gas Commission recently voted to pass the cost on to the consumers.

Philadelphia Solicitor David Berger charged in the suit that the tax will impose an "unjust burden" on the revenue of the Philadelphia Gas Works, the city, and its taxpayers. He also contended the

new levy violates the Third and Ninth Articles of the state Constitution. The state has twenty days in which to file answer to the suit.

Spiraling Gas Prices Fought

THE Pennsylvania Public Utility Commission has been concerned for some time with the number of gas rate increases being sought by gas pipeline companies. The increases are due to out-of-state gas producers boosting wholesale rates. The commission declared that its problem is difficult because increases in wholesale gas prices over which it has no jurisdiction make granting increases to utilities almost automatic. It noted six times in the past year it has tried to block pipeline increases. However, the FPC has granted the boost and the third U. S. circuit court of appeals has ruled that natural gas producers are not required to justify initial prices. The Pennsylvania commission has filed a brief before the U. S. Supreme Court.

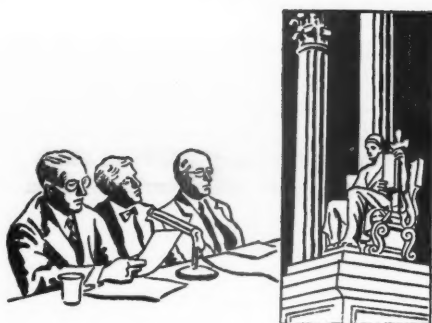
The case involves a \$5 million annual rate boost asked by Transcontinental Gas Pipe Line Corporation, supplier of United Gas Improvement Company. The commission told the Supreme Court "that if producers are not required to justify increases to pipelines," a continued spiral of higher gas prices will result.

Virginia

Gas Territory Ruling Upheld

VIRGINIA's supreme court has upheld a state corporation commission's decision allotting additional gas service territory in northern Virginia to the Washington Gas Light Company. Virginia Gas Distributing Corporation, which had pe-

titioned the commission for some of the same territory, appealed the order. Virginia Gas would serve the Chantilly Airport near Herndon along with consumers in Manassas, Dumphries, and Quantico. Washington Gas would serve all other parts of Fairfax and Prince William counties and most of Loudoun county.



Progress of Regulation

Trends and Topics

Expense for Casualty Losses

Most businesses with a relatively large property investment spread over an extended area must expect casualty losses from time to time. A utility operation is no exception. Nearly all of the reported decisions in recent years have recognized casualty losses as a legitimate cost of service to be borne by the ratepayers. This would seem to be a reasonable view, notwithstanding a number of early rulings which eliminated such losses from operating expenses.

Some of these rulings charged the loss to depreciation reserve; some rejected it as an improper charge against future ratepayers; others disallowed it as an unusual and nonrecurring expense. In one case flood damage was deducted from the operating expense statement where the company's former earnings were considered sufficient to absorb the loss (PUR1919D 924). In another case the commission observed that the company had been able to provide for storm damage out of surplus and earnings while paying 6 per cent dividends (PUR1917F 118).

Some aspects of casualty losses were discussed in PUBLIC UTILITIES FORTNIGHTLY, September 15, 1955, at page 429.

Amortization and Normalization

Although heavy losses from storm or fire or other catastrophe are now generally allowed as an operating expense, they are not normally permitted to be taken entirely in one year. Many authorities require such losses to be amortized over a period approximating the average interval of their occurrence. The Delaware commission, in amortizing unusual storm damage, pointed out that while the company should recover its normal business expenses from the ratepayers, the latter must be protected from permanent rates premised on unusual items of expense (28 PUR3d 121).

The New Jersey commission allowed an electric company to normalize the expense of three storms on a five-year basis related to their average cost, notwithstanding that the average period of occurrence of the storms was two

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and one-half years. Wages which would have been paid to employees whether or not the storm had occurred were excluded (1 PUR3d 191). The same commission denied an allowance for fire loss where it appeared that the loss was abnormal and nonrecurring (99 PUR NS 393). Flood damage in Connecticut was required to be amortized over a period of seven years (19 PUR3d 286). Because of the frequency of severe storms in recent years, the Pennsylvania commission allowed amortization over a three-year period rather than five years as had been considered reasonable in the past. Ordinary maintenance was deducted from the storm damage cost (13 PUR3d 29).

In an early case the California commission indicated that losses from flood and earthquake should be distributed over a period of their probable recurrence, and in the absence of specific data a ten-year period should be used (PUR1919F 523). In another case of the same era, the Indiana commission used a period of twenty years in amortizing damage resulting from breaks in a hydroelectric company's canal. It further provided that only two-thirds of the total damage should be assessed against customers (PUR1918A 325).

The South Dakota supreme court upheld the commission in rejecting an upward adjustment of casualty expenses claimed to be abnormally low for the test year and below the level that may be expected in the future. Casualty expense, as a maintenance item, can be expected to vary considerably from year to year, it was noted. The disallowance was found to be based on substantial evidence (30 PUR3d 289).

Despite contentions by witnesses for the state that storm expense of an electric company was unusually high for the test period, the New Hampshire commission declined to normalize the item, in keeping with its principle of adjusting the test period for known changes only. It noted that unusual expenses resulting from rain, sleet, snow, floods, fire, or other such causes may reasonably be anticipated every year. Breakdowns, taxes, and other costs are expense items which also vary, yet they are not normalized, said the commission (27 PUR3d 113). As it indicated in an earlier statement on the same question, if every abnormal circumstance occurring during the test year is normalized, it removes any margin of safety to protect the company from storms or floods or other catastrophes. "We prefer not to confuse the test-year method by any such nebulous theories," the commission stated (3 PUR3d 361).

Accruals to Meet Losses

The Florida commission approved an annual accrual by an electric company for storm damage as "a sound business practice and a proper charge against operating expenses" (19 PUR3d 417). Similarly, the New York commission has approved an expense charge to create a reserve to take care of possible future storm damages. The reserve would have an upper limit and would be made to conform to actual future experience, "so that in no event will there be any possibility of burdening the consumers with amounts in excess of those necessary to meet proper operating costs" (7 PUR3d 140).

The Missouri commission disallowed amortization expense for past casualty expense of a telephone company on the ground that such expense should not

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be charged to future ratepayers. It allowed a substantial annual operating expense, however, "for any and all casualty losses, normal or abnormal, frequent or infrequent, that might occur in the future." As in the New York rule, this allowance would stand subject to revision, depending upon the company's future casualty experience and its future rate of return (92 PUR NS 481).

The Washington commission allowed storm damage expense based on monthly accruals for the test year rather than a larger claim representing actual payments. It found nothing in the record to indicate that the amounts actually paid by the company were entitled to greater weight than the book accruals (27 PUR3d 238). In view of the fact that a California transit company's cash payments for injuries and damages varied widely, the accrual basis for this item was preferred for rate-making purposes (10 PUR3d 233). On the other hand, in a Maryland case an electric company was not allowed rates sufficient to create a reserve to cover future storm costs, though it was permitted to amortize the actual cost of current damages (25 PUR3d 91).

Review of Current Cases

Denial of Rate Increase Because of Inflation Unwarranted

THE Connecticut commission recently held that any attempt to use inflation as a reason for denial of rate relief would clearly constitute a violation of its statutory duty to authorize rates that afford sufficient revenues to enable the company to meet cost of operation and earn a reasonable return on property in the public service.

The commission concurred in an allegation that the invidious effects of inflation should be halted, but pointed out that it should not be at the expense of essential utility operation.

A rate increase was granted which would produce a return of 5.7 per cent on a water company's net investment rate base.

Excluded from the rate base was an amount claimed by the company to represent the estimated cost of certain land it proposed to purchase. The record showed that the land had not been purchased at the time of the hearing, and it appeared doubtful that, even if acquired, it would

be devoted to public service before the end of the test year.

A sum representing forty-five days of the company's operating expenses was considered an adequate amount for inclusion in the rate base as working capital.

The commission also approved the company's proposal to reduce the "tenancy charge" component of its water rates by one-third, and to wholly discontinue such charge in future rate schedules. Rates for metered water service, the commission opined, should be predicated upon only the meter charge and the water charge.

The company was directed to initiate a program leading toward greater use of metered service and eventual elimination of flat rates. Fifty-five per cent of the company's patrons were currently being served under flat rates. Metered rates, said the commission, constitute the most equitable method of assessing charges for water service while encouraging judicious use of water. *Re Bridgeport Hydraulic Co. Docket No. 9782, November 5, 1959.*

FPC May Terminate Rate Suspension Proceeding Without Determining Reasonableness

THE Federal Power Commission has authority to terminate a rate suspension proceeding without determining whether the rates under investigation are just and reasonable. The commission so held in denying Minneapolis Gas Company a rehearing of an order terminating an investigation into the reasonableness of a rate increase proposed by the Shamrock Oil & Gas Corporation.

Shamrock, a producer in the West Panhandle field of Texas, filed rate schedules in 1955 increasing its price for sour residue gas from 8 to 9 cents per Mcf and for casinghead gas from 9 to 10 cents per Mcf. The increases were suspended in order to permit the commission to inquire into the question of their lawfulness, but they were subsequently allowed to become effective subject to refund.

Increases within Prevailing Prices

In 1959 the commission terminated the proceeding and allowed the rate increases to remain in effect. The proposed rates at this time were below the prevailing prices in the area and Shamrock's costs had been increasing and would continue to do so. The company made no showing of cost of service founded on a rate base.

The commission rested its decision on the ground that it has power to terminate a rate suspension proceeding without making a finding of justness and reasonableness. It did, nevertheless, make a finding that the proposed rates were in fact rea-

sonable, though recognizing that this conclusion was not based on a complete record.

Although an investigation was actually begun into Shamrock's increased rates, the record and the commission's experience since the time of the suspension order showed that it was not in fact necessary to have entered upon an investigation. The commission observed that if the question were before it again, it would not suspend the proposed increases. To continue this proceeding would amount to a discriminatory enforcement of the Natural Gas Act.

The commission also pointed out that, in view of its heavy work load, it could not devote its limited time to such cases as this—where little, if anything, could be accomplished by further proceedings—and neglect important business affecting the public interest. The consuming public will be better protected by a broad, flexible view of the commission's power to terminate suspension proceedings, it was observed.

Commissioner Connable dissented, holding that an order purporting to terminate a suspension proceeding can do so only upon a finding of justness and reasonableness supported by adequate evidence. Without such an explicit or implicit finding, he declared, the order is powerless to permit the rate under investigation to become effective. *Re Shamrock Oil & Gas Corp. Opinion No. 332, Docket Nos. G-9146, G-9498, November 20, 1959.*



Five Floors Held Single Premises for Billing Purposes

THE Illinois commission held that a customer occupying the basement, first, fourth, fifth, and six floors of a building occupied a single premises and was en-

titled to a single bill for electric service. The complainant alleged that the electric company had declined to accede to its request for combined billing, after the land-

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lord had decided to redistribute electrical energy to tenants, on the ground that its two locations were not "contiguous" and, therefore, the complainant was not entitled to the benefits of combined billing. The complainant also alleged, on the premise that contiguity was the controlling condition in determining eligibility for combined billing, that two locations, to be "contiguous," need only be in "close proximity," so that the utility's refusal to allow combined billing was unwarranted.

In a practical sense, pointed out the commission, where so-called noncontiguity is said to exist within a single structure or building, the distinction in certain instances is very finely drawn. The company admitted that if there was occupancy of a single room on an intervening floor, it would entitle the complainant to be considered as occupant of a single premises. The record disclosed no definition of a "room" as respects extent of cross-sectional area and it was not contended by the complainant that it occupied a room on

each floor. The record was clear, however, that a reasonably large section of the intervening floors provided space for a baggage chute large enough to transport bulky objects such as large refrigerators and other similar appliances, and was unavailable to the other tenants of the building and was not comparable to a freight elevator available to all tenants.

The commission, by its decision in the instant case that the complainant should be billed for service to a single premises, made it clear that it had no intent of disturbing the general premise, enunciated in the Aldis case (PUR1925E 363) in respect to horizontal noncontiguity of separate and distinct locations. The circumstances in the instant case warranted the position that the customer occupied a single premises and was entitled to a single bill, provided it assumed all cost responsibility in connection with the wiring and other facilities required to take service at one point of delivery. *Atlas-United Co., Inc. v. Commonwealth Edison Co. No. 44381, November 4, 1959.*



Electric Company's Preferred Service Entrance Not Practicable

THE Maryland commission ordered an electric company to provide 220-volt service to a complainant at an entrance which had been approved by city inspectors.

The company had refused to connect the service, claiming that the entrance was in violation of a tariff rule which provided that the service entrances for adjoining houses should, where practicable, be so arranged that each service loop would supply two houses.

In this instance, the location of the service connection desired by the company would have been on the complainant's rear

wall adjoining the down spout that drained his property and would have been some 8 feet from the present 110-volt service entrance. Complainant had testified that he painted his spouting several times a year and that the location of a service entrance near the spout would create a serious hazard to him.

The commission felt that removal of the service entrance from its present location to the location preferred by the company would not be "practicable" and directed the company to connect to the existing service entrance. However, the commission did not agree with the complainant's

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contention that the rule was unreasonable, capricious, and without merit. As written, it was reasonable and proper, in the com-

mission's opinion. *Aquilla v. Baltimore Gas & E. Co. Case No. 5629, Order No. 54062, May 14, 1959.*



City Gate Gas Rate Fixed and Warning Issued As to Unaccounted-for Gas

UPON application by Texas Southeastern Gas Company, the Texas commission authorized a maximum rate of 28.75 cents per Mcf for pipeline service to city gates, some 10 cents less than the rate proposed. According to the commission, the authorized rate will afford a rate of return of 6.5 per cent on the present fair value of property used and useful. This return will provide a fair compensation and enable the company to attract capital necessary for future expansion.

In the allocations between city gate service and main-line service, an allocation factor based two-thirds on the annual volume relationship and one-third on the

company's calculated peak-day volume relationship was used. The commission would not accept a proposed reclassification of reserve for depreciation to earned surplus.

At the end of a two-year period, the commission will examine the records of the company to determine the amount of lost and unaccounted-for gas. If the present lost and unaccounted-for gas (7.5 per cent in the transmission system and 19 per cent over all) is not materially reduced, a reduction in rates will be considered by the commission. *Re Texas Southeastern Gas Co. Gas Utilities Docket No. 251, September 17, 1959.*



Public Convenience and Necessity Override Association's Service Area Rights

A MISSISSIPPI chancery court has upheld an order authorizing Mississippi Power & Light Company to construct lines and other facilities to furnish service to a manufacturer in the service area of an electric power association. The order approved a service contract between Mississippi Power and the industrial concern.

In appealing from the order, the association relied chiefly upon an alleged exclusive right to serve in its pre-empted territory. The commission pointed out that under the Mississippi public utilities statute there is no such thing as an "exclusive" or "pre-empted" service area whereby an association or company under a grandfather application can claim indefinitely and exclusively one particular area.

One of the prime purposes of the statute, said the court, was to give the commission an express right to decide in its sound judgment and discretion whether considerations of public convenience and necessity should override any conception of exclusive service area.

Each electric power association in Mississippi has as its statutory corporate purpose the furnishing of service to its members only. The manufacturer seeking service in this case was not a member and had no intention of becoming one. It particularly requested Mississippi Power to furnish service upon the advice of a consulting electrical engineer.

Evidence Supports Order

Evidence indicated that the lines of

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Mississippi Power, in order to serve the manufacturer, would have to be only a fraction of the length required by the association. Additional facilities needed to provide the service would be much less expensive for Mississippi Power than for the association. Furthermore, it appeared that placing this industrial load on the associa-

tion's lines would cause objectionable flicker and possible interruption of service to its members.

In the court's view, a preponderance of the evidence supported the order of the commission. *Capital Electric Power Assn. v. Mississippi Power & Light Co.* No. 53,528, November 10, 1959.



Plan for Elimination of Holding Company Preferred Stock Approved

THE Securities and Exchange Commission approved a plan submitted by American Natural Gas Company, a holding company, designed to comply with an earlier order (23 PUR3d 292) directing the company to eliminate its 6 per cent cumulative nonredeemable \$25 par value preferred stock. The plan provided for the elimination of the preferred stock through the payment of cash in the amount of \$32.50, plus accrued dividends, for each share of such stock publicly held. Only 27,481 shares of the stock were outstanding.

Statutory Standards

Before the commission may approve a plan filed under § 11(e) of the Holding Company Act, it must find that it is necessary to effectuate the provisions of § 11(b) of the act and is fair and equitable to the persons affected. The commission must also find that the proposed transactions satisfy the other applicable provisions of the act.

The commission had previously found that the continued existence of the preferred stock in the holding company structure violated § 11(b)(2) of the act and, accordingly, had directed the company to take appropriate steps to eliminate the stock from its capital structure. The present plan, according to the commission, provided an appropriate means of achiev-

ing this result, and, accordingly, satisfied the "necessity" standard of the act.

Fairness of Plan

The commission also concluded that the plan was fair and equitable to the persons affected. These persons were the holders of both the preferred and common stock. The commission observed that the fair and equitable standard of § 11(e) requires that persons affected by a plan thereunder shall receive the equitable equivalent of the rights being surrendered. In determining this question, the commission said that primary emphasis should be placed upon immediately operative rights in an enterprise, such as a stockholder's interest in earnings and dividends, as opposed to inchoate rights such as rights in the event of a liquidation and dissolution.

Fairness to Preferred Stockholders

The preferred stock constituted an extremely small segment of American Natural's capitalization. The directly owned assets of the company, however, consisted almost entirely of common stocks of its subsidiary companies. These common stocks were, for the most part, junior to substantial amounts of long-term debt of the subsidiaries. Thus, the commission said, the position of the preferred stock in the corporate capitalization did not afford a realistic basis for de-

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termining its investment value.

An objector to the plan contended that a proposed cash payment was inadequate and that it should be increased to \$43 per share. The commission rejected this argument. The commission found that \$43 per share coincided with the highest market price achieved by the stock since at least 1922.

This price was reached in June, 1958, while the company was considering the formulation of a plan for compliance with the commission's § 11(b)(a) order. The commission believed that it was quite clear that the increase in the market price to a high of \$43 per share was unusual and unsupported by any particular improvement in the company's existing financial position or in its future prospects. Nor was it paralleled by any comparable increase in preferred stock prices generally. Moreover, there was no indication that the attainment of this high price represented a correction of a previous unduly low price for the stock. The commission believed that such price was substantially influenced by speculative and extraneous considerations.

In determining whether the proposed cash payment of \$32.50 was fair to the preferred stockholders, the commission cited a Supreme Court decision (80 PUR NS 282) in which it was stated that the most workable hypothesis for finding a fair equivalent between cash received and the security surrendered under the compulsion of a holding company reorganization plan is that of reinvestment in a security of comparable risk. After considering all of these factors the commis-

sion concluded that the plan was fair and equitable to the preferred stockholders.

Fairness to Common Stockholders

The commission also found that the elimination of the preferred stock would have an insignificant effect upon the corporate and consolidated earnings applicable to the common stock. It noted that to the extent that the proposed payment of \$32.50 per share might exceed the amount which might be indicated on the basis of comparisons made with preferred stocks of comparable risk any such excess might be regarded as nominal in so far as the common stockholders were concerned. This was evident from the fact that there were outstanding only 27,481 shares of preferred stock as against 5,884,528 shares of common stock having a current market value of \$57.50 per share.

Accounting Matters

The company proposed to record the retirement of its outstanding preferred stock by debiting its preferred stock capital account with an amount equal to the aggregate par value thereof and by debiting its paid-in surplus account with an amount equal to the excess of the total amount of cash paid to the preferred stockholders, exclusive of accrued dividends, over the total par value thereof. The commission disapproved this proposal, finding that the amount of the proposed cash payment, exclusive of accrued dividends, in excess of the par value of the preferred stock should be charged to earned surplus. *Re American Nat. Gas Co. File No. 54-224, Release No. 14089, November 13, 1959.*



Mutual Water Company Held to Be Public Utility

THE California commission held that a mutual water company was not exempt from regulation as a public utility.

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The basic test, said the commission, is whether or not the company has dedicated property and service to the public. The

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fact that the corporation is organized as a mutual water company and is allegedly consumer owned and controlled does not of itself exempt it from regulation.

The statutory exemption of mutual companies from commission regulation can be destroyed by a number of circumstances, the commission pointed out. An indirect delivery of water as well as a direct delivery to a nonstockholder destroys the exemption. This was the case here. An elementary rule is that any claim to exemption from the reach of a comprehensive regulatory statute must be strictly construed.

The evidence did not show that the mutual delivered water even to its shareholders at cost. The failure of the mutual to prove such delivery was another fatal defect to its claim that it fell within the statutory exemption.

The commission pointed out that one who dedicates water to a public use is a public utility, provided the dedication is voluntary. In this case, the mutual company has been the sole supplier of water to a utility for many years. The mutual also supplied water to parties other than its stockholders, permitted the shares of stock to be transferred freely without being appurtenant to the land, permitted the shares of stock to be leased and supplied water to the lessees, and furnished additional water to shareholders upon the payment of special rates. Furthermore, the mutual had been taking in new domestic customers each year for at least the past three years, and it maintained and charged for six separate classes of service. *Yucaipa Domestic Water Co. v. Yucaipa Water Co. No. 1, Decision No. 59222, Case Nos. 6247, 6248, November 3, 1959.*



Contract Obligation Does Not Affect Right to Discontinue

THE Maryland commission held that a railroad's right to discontinue service operated at a loss is not affected by a contract in which the railroad's predecessor agreed not to divert trade or travel from a municipality.

Protestants to the proposed train discontinuance had contended that the court's statement in the case of *Bullock v. Florida ex rel. Railroad Commission* (PUR1921B 507), in which it was held that investors in a railroad are not bound to go on with service at a loss unless there is an obligation imposed by statute or contract, provided an exception because of a municipal ordinance relating to a bond guaranty, in which the railroad's predecessor had agreed to nondiversion of trade or travel.

The commission disagreed. A railroad is not obligated to continue to render service, freight or passenger, at a loss, it said,

notwithstanding any guaranty its predecessor may have given with reference to diversion of trade or travel from one of the cities affected.

The railroad had been sustaining a substantial loss in operation of the service involved, a loss which could not reasonably be anticipated to be overcome in the foreseeable future by any adjustment of rates or schedules or by any amount of promotion. The commission noted that it was bound by limitations set forth by the court of appeals of Maryland in *Hessey v. Capital Transit Co.* (80 PUR NS 513). In that case, it was held that a railroad organized and conducted for private profit, but devoting its property to the use of the public, did not do so irrevocably or absolutely, but upon condition that the public would supply sufficient traffic on a reasonable rate basis to yield a fair return. If at any time

it appeared that further operation would result in a loss, the company had the right to discontinue operation and salvage whatever it could out of the property by dismantling the road. To compel a railroad to continue at a loss would amount to the

taking of property without just compensation, in violation of the due process clause of the Fourteenth Amendment of the federal Constitution. *Re Pennsylvania R. Co. et al. Case Nos. 5602, 5603, Order No. 54048, April 29, 1959.*



Public Power District's Service to Municipality Ultra Vires

THE Nebraska supreme court reversed and remanded a judgment upholding the validity of a public power district's contract to supply 60 per cent of its electricity to a municipality. Applicable statutes, held the court, evinced a legislative intent to recognize and affirmatively declare that a district organized under statute was subject to the limitations of the petition which became its charter. In this instance, the petition indicated a clear intent to limit the power of the district to supply electricity to rural inhabitants.

The rights and powers granted by statute, pointed out the court, which gave the district all the rights and powers of a public electric light and power district or

public power district, related to the means by which the district could exercise powers defined in its charter, and did not relate to an increase or extension of the basic defined powers.

It was contended that the doctrine of implied powers gave the district the right to sell electricity to the municipality involved. The failure to give authority, answered the court, is just as strong as an express proviso that a corporation shall not do certain acts. Powers not granted either expressly or impliedly, are impliedly prohibited. The contract was held to be ultra vires and, therefore, null and void. *Schroll et al. v. City of Beatrice et al. 98 NW2d 790.*



"Reasonable Domestic Needs" Does Not Include Waste

THE Virginia supreme court of appeals reversed and remanded a commission order because the commission's finding that "reasonable domestic needs" meant all water that domestic consumers actually used for domestic purposes was too broad in that it did not exclude water that was wasted.

The proceeding had been instituted under a statute which authorized the commission to investigate a complaint of consumers connected to a privately owned water system and to formulate an opinion on whether the system was capable of serving reasonable domestic needs of persons or property served. The statute did

not empower the commission to determine and adjudicate the rights and liabilities of parties to a contract between a privately owned water system and its consumer connectors, or to enforce the provisions of such contracts. It did not authorize the commission to formulate an opinion as to whether a water system had complied with its contracts.

The commission was only authorized to investigate the complaints filed and to formulate an opinion whether in the light of the successful performance of water systems of similar design and purpose, the system was capable of serving the reasonable domestic needs of persons and proper-

PROGRESS OF REGULATION

ties served. Whether or not the water system had fulfilled its contracts with consumer connectors could then be determined in a court of law, with the commission's opinion admissible in evidence.

The court held that the commission's finding that the water system was not capable of serving the reasonable domestic needs of the persons and property served by it was supported by the evidence. It had been shown that the system had ample storage facilities but not enough water, that the new water consumers added a further burden to the system, that a failure to provide local service personnel extended the periods of water shortage or power failure, and that there was an excess quantity of iron in the water in some parts of the system.

However, the commission erred in holding that "reasonable domestic needs"

meant all the water that domestic consumers actually used for domestic purposes. The word "reasonable," pointed out the court, excludes water that is wasted, and water "actually used" may be immoderate and excessive.

The words "reasonable" and "needs" are relative terms with no fixed or rigid meaning, said the court, but they are not ambiguous. In ordinary use and common acceptance, the word "reasonable" means fair, just, ordinary, or usual, not immoderate or excessive, and not capricious or arbitrary. It means what is just, fair, and suitable under the circumstances.

The word "need" implies a condition requiring supply or relief. It means all that one requires for relief, and is synonymous with adequate for the requirements. *Sydnor Pump & Well Co., Inc. v. Taylor et al.* 110 SE2d 525.



Additional Fees Allowed in Holding Company Reorganization Proceeding

THE Securities and Exchange Commission made final allowances of fees and expenses for services rendered in proceedings for the reorganization of International Hydro-Electric System with respect to plans culminating in the conversion of the company into an investment company. Allowances requested by some of the applicants were in addition to amounts previously awarded in connection with the proceedings.

Some applications for fee allowances were denied, however.

Statutory Standard

The commission, first of all, referred to the statutory standards governing its action. It pointed out that compensation may be paid for services which have contributed to a plan ultimately approved or to the defeat of a proposed plan found to

be unsatisfactory, or which have otherwise directly and materially contributed to the development of the proceedings with respect to the plan.

In determining the amount of compensation to be allowed, the commission explained that the primary factor is the amount of benefit conferred on the estate or its security holders by the services rendered. Some of the factors considered are the necessity of the services, duplication of efforts, the intricacy and magnitude of the problems involved, the time necessarily required to be expended, and the experience and ability of the applicant.

Other factors are the size of the estate and its ability to pay, the success or lack of success of the position asserted by the applicant, and the extent to which the applicant's efforts were directed to or motivated by personal or special interests

PUBLIC UTILITIES FORTNIGHTLY

or unreasonably delayed or were detrimental to the proceedings.

The commission pointed out that the evaluation of these factors cannot be reduced to a fixed formula or expressed with mathematical precision. In applying these criteria it seeks to attain the objective of conserving the estate for the benefit of the security holders while at the same time recognizing that inadequate allowances for compensable services would tend to discourage vigorous and effective participation by representatives of security interests. In this connection due consideration was accorded to the recommendations of the company's management.

Fee Allowances

Bartholomew A. Brickley, the court-appointed trustee of the holding company, and Oliver R. Waite, counsel for the trustee, were denied any further allowances. They had already been allowed fees and expenses in earlier proceedings. The commission pointed out that the problems handled by them after 1953 were of a reduced scope and simpler nature, that difficult and important matters were to a substantial extent performed by other counsel receiving separate compensation from the estate, and that Brickley's time estimates were indefinite and liberal.

An additional fee was allowed to Purcell and Nelson, counsel for the so-called interim board of directors which had been elected by the holders of the class A stock, the holding company's sole remaining class of stock. That firm prepared the investment company plan which was eventually adopted and participated actively in the proceedings before the commission and the courts. The commission did not grant in full the firm's request for a fee, however, noting that the formulation of that plan was not particularly difficult and that in resisting opposing plans and contentions

this firm had received valuable support from other applicants who were also allowed fees.

The commission denied the applications of Wolf, Block, Schorr & Solis-Cohen, counsel for Christian A. Johnson and Central-Illinois Securities Corporation and Central-Illinois Securities Corporation class A stockholders. The commission found that prior to the election of the interim board the clients of the Wolf, Block and Schenker firms favored a single investment company. Following the election in which these clients failed to gain control of the board, their counsel presented plans contemplating two investment companies.

The commission concluded that, in view of this change of position, the firms' representation was not in the interest of the stockholders as a class but primarily in the interest of their clients. It also concluded that the plans and related contentions presented by these firms were unreasonable under the circumstances, particularly since their acceptance would have jeopardized certain tax advantages preserved by the plan which was ultimately approved. The commission decided that their representation did not contribute to the development of the proceedings.

Dissenting Opinion

Commissioner Sargent, with whom Chairman Gadsby concurred, dissented from the commission's denial of fees. Commissioner Sargent believed that the unsuccessful applicants were entitled to compensation because they contributed to a full exploration of substantial issues relevant to the fairness of the plan. He pointed out that while lack of success may be a factor in determining the amount of compensation, it is not in itself a bar to an award. And, he said, a change of position in order to advance the interests of clients

PROGRESS OF REGULATION

in the light of changed circumstances or new facts is not necessarily unreasonable or indicative of primarily selfish motivation. Commissioner Sargent said that to deny allowances to these claimants was not in accord with the principle that adequate security holder representation in reor-

ganization proceedings should be encouraged through the allowance of compensation for activities which aid the reorganization process. *Re International Hydro-Electric System (now Abacus Fund)*, File Nos. 54-164, 59-14, Release No. 14080, October 26, 1959.



Applicant Entitled to Appeal from Order Rescinding Grant of Certificate

PANHANDLE EASTERN PIPE LINE COMPANY was aggrieved, the Michigan supreme court ruled, by the action of the state commission rescinding a prior order authorizing the company to make direct sales to an industrial consumer. The company was, therefore, entitled to appeal from the rescission order.

The commission's first order granting the certificate was appealed by a local distributing company, and Panhandle intervened as a party defendant. The court took additional evidence which it transmitted to the commission. The commission thereupon rescinded its original order and reported its action to the court. As required by statute, the court then dismissed the action. This was followed by an appeal by Panhandle from the administrative rescission order. This appeal was also dismissed. Appeal from this dismissal was taken to the Michigan supreme court.

In favor of the lower court's dismissal of the appeal from the rescinding order

issued upon receipt of evidence from the court, it was contended that the pertinent statute does not authorize an appeal in such case. The statute provides that "any person aggrieved by the order of the commission made upon said application (for certificate) may review such order." It was urged that the commission's action in rescinding its prior certificate order was not an order "made upon said application."

The fact that the commission, after appeal and receipt of additional evidence, rescinded its original order rather than having denied the application in the first place, the high court pointed out, leaves the net effect of the commission action and final order no less an order made upon Panhandle's application, denying it a certificate. The case was remanded to the lower court for determination of Panhandle's appeal. *Panhandle Eastern Pipe Line Co. v. Michigan Pub. Service Commission*, 98 NW2d 592.



Service Improvement Study Directed in Rate Case

THE Maryland commission granted a water company a rate increase which would provide a return of 5.8 per cent on the book cost rate base.

This return of 5.8 per cent would be reasonable on present investment, noted the commission, but would in no

way provide sufficient income to attract additional capital to make necessary service improvements.

The company was directed to obtain the services of a competent engineering firm, to be approved by the commission, to make a survey of the present system. It was

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understood that if the firm selected was acceptable and the fee charged was reasonable, the commission would authorize the collection of additional rates for the purpose of amortizing the cost of the sur-

vey over a period of years to be determined when the amount of the expense was established. *Re Mountain Lake Water Co., Inc. Case No. 5645, Order No. 54145, September 23, 1959.*

Other Recent Rulings

Service Inadequacies. The Wisconsin commission directed a telephone company furnishing inadequate service and facilities to a number of complainants to replace deteriorated poles, crossarms, brackets, and rusted wire on its lines, to provide adequate tree clearances along its lines, to take measures necessary to reduce inductive interference on certain lines to an acceptable level, and to reconstruct portions of certain lines. *Cox et al. v. Readfield Teleph. Co. 2-U-5249, October 9, 1959.*

Telephone Company Return. The Wisconsin commission considered a return of 6.5 per cent on a telephone company's net book value rate base reasonable. *Re Hager City Teleph. Co. 2-U-5248, October 9, 1959.*

Municipal Water Plant Rates. A municipal water plant was authorized by the Wisconsin commission to increase rates to a level calculated to yield a return of 5.5 per cent to enable the plant to borrow funds with which to finance construction of additional facilities. *Re Village of Balsam Lake, 2-U-5217, September 24, 1959.*

Fare Schedule. The Minnesota commission authorized a bus company to charge an adult cash fare of 25 cents, an adult token fare of five for \$1, a student cash fare of 15 cents, and a stu-

dent token fare of two for 25 cents. *Re Twin City Motor Bus Co. Docket No. 2, Order No. 1489-3, October 8, 1959.*

Refrigerated Motor Transportation. The North Carolina commission ruled that trucks equipped with refrigerating facilities do not constitute special vehicles or special equipment within the meaning of a commission rule excluding from general hauling authority the right to haul commodities requiring special vehicles or special equipment. *Re Commodities Requiring Refrigeration in Transit, Docket No. 4066-H, September 22, 1959.*

Inadequate Service Brings New Certificate. In separate orders, the Missouri commission authorized Grand River Mutual Telephone Corporation to provide service in two new areas where existing service was plainly inadequate and no offer to improve such service had been made. *Re Grand River Mut. Teleph. Corp. Case Nos. 14,258, 14,286, September 25, 1959.*

Safety Violation Penalty. The U. S. district court upheld the penalty levied against a railroad, under the Safety Appliance Act, for moving a car delivered by another railroad in defective condition from a live track to a repair track, where the movement did not fall within the statutory exemption permitting movement of defective cars to the nearest available

PROGRESS OF REGULATION

repair facility where the equipment becomes defective or insecure while being used upon the railroad's line. *United States v. Denver & R. G. W. R. Co.* 175 F Supp 662.

CAB Order Stayed. The U. S. court of appeals stayed a CAB order precluding an airline from rendering service under a certificate awarded in a prior proceeding, pending determination of an appeal from the certificate proceeding, where denial of a stay would have the effect of a final award against the airline. *Delta Air Lines, Inc. v. Civil Aeronautics Board*, 270 F2d 166.

No Car Distribution Discrimination. The U. S. district court upheld the ICC's dismissal of a shipper's complaint which alleged discrimination by a railroad in assigning capacity ratings where the record showed that the ratings were properly related to actual production experience and that the shipper received as great a proportion of actual car requirements as had other shippers. *MacInnis (Wren Planing Mill) v. Interstate Commerce Commission et al.* 176 F Supp 274.

Railroad Rates for Ex-barge Grain. The U. S. district court held that a railroad tariff which charged full local rates for transshipment of ex-barge grain from river ports and gave more favorable treatment to ex-rail grain transshipped from the same ports violated the National Transportation Policy because it did not recognize and preserve the inherent advantages of barge transportation. *Arrow Transp. Co. et al. v. United States et al.* 176 F Supp 411.

Piggy-back Rates. The U. S. district court held that a motor carrier could not establish separate rates between points

it did not hold motor carrier operating authority for, notwithstanding that the commission had approved piggy-back service between such points. *Consolidated Freightways, Inc. v. United States et al.* 176 F Supp 559.

Tax on Natural Gas. The U. S. district court held that a gross receipts license tax levied by a municipality upon companies selling natural gas in the city did not violate the commerce clause of the federal Constitution where it was applied only to local delivery of natural gas to industrial consumers through pipes of a distributor. *United Gas Pipe Line Co. v. Ideal Cement Co.* 176 F Supp 748.

Taxicab Regulation. The Michigan supreme court held that a municipality was not precluded from regulating taxicabs since owners of taxicabs are not common motor carriers of passengers within the scope of the Motor Carrier Act. *Lorraine Cab et al. v. City of Detroit et al.* 98 NW2d 607.

Agency of State. The New Mexico supreme court held that a municipality was precluded from serving an irrigation district located more than five miles from city limits where the district was not an agency of state within the meaning of a statute forbidding municipalities to extend distribution lines more than five miles from city limits except for sales to departments of state. *Hooker v. Village of Hatch*, 344 P2d 699.

Enlargement of Certificate Rights. The Pennsylvania superior court held that operating rights contained in a taxicab certificate are not automatically amended and increased by a change in circumstances that may have occurred, or by a change in policy declared by the commission

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in another proceeding. *Marmer et al. (Mitchell's Cab Service) v. Pennsylvania Pub. Utility Commission*, 154 A2d 262.

Referral to ICC. The Utah supreme court held that the trial court erred in referring questions of tariff interpretation to the ICC under the doctrine of primary jurisdiction where neither party had attacked the reasonableness of tariffs per se, there had been no contention that the railroad was without a tariff covering the commodity involved, and there were no provisions in the tariff requiring the special expertise of the commission. *Union P. R. Co. v. Structural Steel & Forge Co.* 344 P2d 157.

Abandoned Plant Write-off. The Indiana commission authorized a telephone company to write off, over a five-year period, the book value of acquired plant subsequently abandoned and taken as a loss for federal income tax purposes. *Re Eureka Teleph. Co., Inc. No. 28274, September 11, 1959.*

Power to Order Money Judgment. The Indiana commission held that it was without right or authority to order a town board to refund moneys to applicants for water service or to order the payment by the applicants to the town board or any others, since such orders would be in the nature of a money judgment. *Howard v. Town Board of Fairmount et al. No. 28271, October 2, 1959.*

Highway Common Carriage. The California commission held that a trucking firm which receives compensation for service, and holds itself out to serve any shipper or consignee desiring service between fixed termini on a daily basis, is

a highway common carrier. *Re Talsky (Reliable Delivery Service) Decision No. 59118, Case No. 6122, October 6, 1959.*

Reserve Account for Deferred Taxes. As an exception to its prescribed accounting practice, the Colorado commission authorized Citizens Utilities Company to use a reserve account, "Accumulated Deferred Taxes on Income," instead of a restricted surplus account, in accounting for tax deferrals resulting from accelerated depreciation of properties within the state, since the company was currently using the reserve account, following Federal Power Commission practice, with respect to its properties in several states. *Re Citizens Utilities Co. Application No. 17088, October 9, 1959.*

Abandonment Disapproved. A small natural gas producer supplying gas to an interstate pipeline company was denied permission by the Federal Power Commission to abandon such service, notwithstanding a contention that it could sell the gas in intrastate commerce at a lower pressure and thereby be enabled to produce additional low-pressure gas which would otherwise be left in the ground, since the commission found that any possible conservation was outweighed by the pipeline's need for the gas. *Re Harper Oil Co. Docket No. G-14456, October 29, 1959.*

Private Dam Project Requirements. The Federal Power Commission refused to delete statutory requirements affecting future capacity and project changes from an order licensing a paper manufacturer to construct and operate a dam on a navigable waterway for its own use. *Re Nekoosa-Edwards Paper Co. Project No. 2255, October 26, 1959.*



Industrial Progress

Electric Plans \$50 Million to "Store" Electricity

N Electric Company, St. Louis, planning a \$50 million installation to "store" electricity by using generated electricity to pump uphill during the night and electricity from the same running downhill during the

and a "pumped storage" project, construction will be near Lester, Mo., and is expected to provide additional 350,000 kilowatts of peak capacity by the time of completion in the spring of 1963. The new project will begin according to J. W. McAfee, president.

The company asserts its "pumped storage" project is larger than two projects at Niagara Falls and at Britain, under construction. The project has been made possible by development in recent years of reverse equipment that, when operating in reverse, generates electricity. The "pumped storage" project in the construction of two small units on the top of a granite mountain about 1,000 feet above the surrounding terrain and the other at the east fork of the Black River in Sank Creek.

According to George P. Gamble, Electric operating vice president, the steam power will be used to pump the water uphill during the day when most industrial and commercial customers are shut down. The "pumped storage" project will approximately three kilowatts of nighttime power to pump uphill, two kilowatt hours in time, Mr. Gamble said.

The economies resulting from the project would be "substantial" among these is the decrease in two years of the beginning

of construction of a new, more costly steam generating plant elsewhere on the Union Electric system. The utility now has a 350,000 kilowatt steam generator under construction at its Meramec plant in south St. Louis county.

Cincinnati Gas & Electric Has \$50,000,000 Program

THE Cincinnati Gas & Electric Company is planning a \$50,000,000 expansion program according to Ernest S. Fields, president.

The program revolves around construction of a fifth generating unit, capable of 250,000 kilowatt capacity, at the Walter C. Beckjord station, near New Richmond.

Largest in the CG&E system, the new unit will cost nearly \$40,000,000 and an additional \$10,000,000 will be spent on new transmission facilities to distribute the power. It is planned to have the new unit ready for service in the Fall of 1962.

Total generating capacity of the company would be increased to 1,475,000 kilowatts with the new unit, Mr. Fields stated.

Installation of the fifth unit will increase the company's investment in the Beckjord station to \$138,000,000. The fourth unit of 165,000 kilowatt capacity, and costing \$24,000,000 was placed in operation at the plant last year. A similar unit costing \$27,000,000 is now being installed in the Miami Fort station at Columbia Park which will increase that station's generating capacity to 521,000 kilowatts late next year. Present capacity of Beckjord station is 490,000 kilowatts.

CG&E will spend an average of more than \$46,000,000 per year in each of the next three years, Mr. Fields stated.

Construction expenditures for facilities such as mains, meters, services, etc., run in excess of \$20,000,000 a year, Mr. Fields asserted.

G-E Appointment

GENERAL Electric Company Vice President Robert L. Gibson has been appointed general manager of the company's transformer division, with headquarters in Pittsfield, Mass., according to Arthur F. Vinson, vice president and group executive of the apparatus and industrial group.

Mr. Gibson, who was formerly general manager of the company's chemical and metallurgical division succeeds Vice President Ray W. Smith, who has resigned to accept another position.

Concurrently, Mr. Vinson announced the appointment of Dr. Charles E. Reed to replace Mr. Gibson as general manager of the chemical and metallurgical division with headquarters in Bridgeport, Conn. Dr. Reed had been general manager of the metallurgical products department, Detroit, Mich.

Niagara Mohawk Establishes Nuclear Engineering Section

NIAGARA Mohawk Power Corporation is establishing a nuclear engineering section in its engineering department. (Continued on page 20)

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partment, it was announced recently by Earle J. Machold, president. The new group will make engineering studies and analyses to determine the best type of atomic power plant to build in the company's service area when it becomes economically feasible to do so.

Howard D. Philipp has been appointed nuclear engineer for Niagara Mohawk and will organize and direct the new nuclear engineering group.

Since 1953, Mr. Philipp has been on leave of absence from Niagara Mohawk while working with the Atomic Power Development Associ-

ates in Detroit. APDA is a non-profit organization of 43 electric utilities, manufacturers and engineering firms engaged in research and development of atomic energy for electric power and other purposes. Mr. Philipp was one of three Niagara Mohawk engineers assigned to APDA to gain experience in nuclear engineering. The others, Thomas E. Lempges, Dunkirk, and Melvin A. Silliman, Oswego, will continue with the APDA and join the nuclear engineering section later.

The APDA group is doing the conceptual engineering design for the

Enrico Fermi atomic power plant now being built near Monroeville, Pa., and scheduled for operation next year. Niagara Mohawk is also more than 50 electric utilities participating in the development, research and construction of an advanced nuclear, gas-cooled reactor power plant. This group is the High Temperature Reactor Development Association. A prototype plant will be built by the Philadelphia Electric Company in York county, Pennsylvania.

"By participating in these projects, Niagara Mohawk is contributing to the development of electric power from the atom and learning the intricate processes involved," Machold said. "We will be ready when the time comes that it is advantageous to our customers to build atomic energy plants within the Niagara Mohawk System."

Niagara Mohawk's new nuclear engineering section will be made up mostly from selected personnel from the company's engineering department. This department includes a large, experienced group of general plant designers. For many years they have done all the engineering design work on the company's generating facilities, both steam and hydro electric, and have been responsible for many widely-recognized developments in this field.

Recent Housepower Survey Shows Low Cost for Modernization

\$196 is the average cost for modernization in 1958 according to a recent Housepower survey released by the Edison Electric Institute's Live Better Electrical program.

The 6-page survey of Housepower activities in 1958 was sent to 200 companies, and replies were received from 104 companies representing more than thirty million customers, nearly two-thirds of the electric customers in the U. S.

At least 114,000 rewiring jobs resulted from the Housepower program sponsored by the Edison Electric Institute, the trade association for investor-owned electric utilities in the country. The modernization of electrical systems of existing homes is the main reason for the 100 Amps or larger service entrance. Only 16,000 of these were rewired, it was noted.

Over half the electric power companies covered in

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promote local adequate wiring
thirteen thousand electrical con-
s participated in this House-
program. These companies
ted 66 forums, with over 1100

eral conclusions from the sur-
indicate that the Housepower
am is a very helpful tool when
sively promoted at the local
The respondent utilities claim
Housepower is unique in offer-
sales potential for the contrac-
d wiring equipment manufac-

st Potential for Sales of ical Appliances Predicted

burgeoning 1960's will offer op-
portunities for sales of 190 to 200
n major electrical household ap-
es, according to B. A. Chapman,
ive vice president and general
er of the Appliance Division of
can Motors Corporation.

Chapman stated that an "at-
le" portion of the vast industry
ial probably lies in the area of
million units, or 36 per cent
than the factory sales of the
He said the projection as-
continuation of present rela-
ips and growth trends in popu-
family formation, gross na-
product and consumer goods
itures, but does not include an
uity" factor for new-product
ment that helped boost appli-
ales during the past decade 103
nt over the previous comparable

for electrical appliances consid-
in his 10-year projection were
erators, washers, electric ranges,
rs, clothes dryers, room air con-
ers, dishwashers and food waste
ers.

Chapman based his sales out-
on opportunities for replace-
and increased saturation and in
arket created by new family
tions.

ern Cal. Edison to Install ansistor Computing System

ll-transistor computing system
y capable of preparing and
sing all of the billing and ac-
ing for approximately one mil-
lions has been ordered by
ern California Edison Com-
according to an announcement

by T. M. McDaniel, Jr., Edison vice
president.

Edison recently signed a contract
with Minneapolis-Honeywell's Data-
matic Division for a Honeywell 800
system to be installed in Edison's
building soon to be constructed in
Long Beach.

This new system features what is
called a "second-generation" com-
puter. It is described by Honeywell's
vice president Walter W. Finke as a
"new, transistorized system so flex-
ible it can do data-processing and
scientific computation simultaneously
at lightning speed."

Evidence of the Honeywell 800 sys-
tem's speed, McDaniel said, is its
ability to select, compute and print
over 25,000 customer bills for the elec-
tric power company in a single work
day. It can be expanded to accommo-
date the company's growth require-
ments.

He said Edison personnel are now
working on what is possibly the most
difficult, time-consuming task in con-
nection with conversion to electronic
processing. This is the change from
Edison's present punch card methods
to a system or program adaptable to
the computer and accessory equip-
ment—a job which will take approxi-
mately 18 months.

Since construction of the 10-story
Edison building in Long Beach will
not start until early 1960 and be com-
pleted until 1961, the company is able
to set aside space specifically for the
electronic data system.

New VEPCO Computer Improves Efficiency of Generation & Transmission

AN electronic computer, designed to
control instantaneously the system-
wide electrical generation of the Vir-
ginia Electric and Power Company,
has been installed at Vepco's system
operator's office at Richmond.

The computer and its associated
equipment, costing approximately
\$125,000, will save the company an
estimated \$60,000 annually in the cost
of producing and transmitting elec-
tricity, according to a company an-
nouncement. Among the first of its
type in the United States, the com-
puter was designed specifically for
Vepco.

The computer operates this way. It
figures transmission losses in Vepco's
2,245 miles of high voltage lines, cost
of fuel and generating efficiency and

then mathematically determines each
station's share of the necessary load
to meet customer demand. This cal-
culation makes it possible for power
to be supplied to the system distribu-
tion network at the lowest possible
cost.

In addition to the master computer
at Richmond, auxiliary computers are
located at each generating station to
keep production cost at each station
to a minimum.

The computer system, belonging to
the same family of "electronic brains"
used in satellite and guided missile
experiments, contains more than 1300
transistors. The system required ap-
proximately six miles of wire to con-
nect it to existing control and meter-
ing equipment.

The computer does not replace any
personnel. It simply provides Vepco's
system operators with another means
of improving economy and efficiency
in electric production and transmis-
sion. The computer is so designed
that new generating units and trans-
mission lines may be placed under its
control without major alterations.

Vepco has expanded its generating
capacity 350 per cent since World
War II and the installation of the
new electronic computer is just one
of many steps which have been taken
to keep down the cost of electricity.

(Continued on page 22)

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ister utility rate structures, and to
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rate conditions.

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regulatory agencies, it would be helpful.
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INDUSTRIAL PROGRESS—(Continued)

Commonwealth Edison Announces Large Program in History

COMMONWEALTH Edison Company has announced the largest four-year construction program in its history.

Willis Gale, Edison chairman, said the board of directors of the company has approved a \$700,000 construction expenditure program for the years through 1963. The new total was reached when utility extended its construction estimates to 1963. The program calls for expenditures of \$160,000,000 in 1960; \$165,000,000 in 1961; \$175,000,000 in 1962 and \$200,000,000 in 1963.

"Commonwealth Edison," said Mr. Gale, "carries a continuing construction program to insure adequate generating and distribution facilities to meet the demand for electricity in Chicago and Northern Illinois. The program is subject to future revision to meet changing conditions."

The major items in the program are five generating station projects aggregating 1,595,000 kilowatts of capacity. These generating units, which have been previously announced, are in various stages of construction or on order.

They include the 180,000-kilowatt Dresden Nuclear Power Station scheduled for operation in 1960; 305,000-kilowatt units scheduled for completion in 1962; and a huge 500,000-kilowatt unit for 1963.

Completion of these projects will increase the 5,021,000-kilowatt net generating capability of the Edison system to an estimated 6,463,000 kilowatts, allowing for retirement of older equipment. The total will be about three times the system capacity in 1945.

Of the total four-year expenditures \$370,000,000 will be for generating plant, \$320,000,000 for transmission and distribution facilities and \$10,000,000 for other plant.

The \$700,000,000 1960-1963 construction program would bring to \$2,175,000,000 the utility's expenditures for new electric facilities in the 18-year period beginning World War II.

Philadelphia Electric Plans Outlay Of \$319,000,000 in Four Years

EXPANSION by Philadelphia Electric Company geared to the steadily growing needs of Delaware for electricity, gas, and steam. In 1960, expenditures for new and expanded facilities are set at \$88 million. Outlays of \$319 million are planned for the 4-year period 1960-1963.

Philadelphia Electric became a billion-dollar company in 1959. A large portion of its construction expenditures of \$113 million during the year was associated with the Eddystone electric generating station nearing completion on the Delaware river above Chester. The 325,000-kilowatt generating unit at this plant, capable of producing one kilowatt-hour of electricity from less than two-thirds of a pound of coal, was fully operated last November. Designed to operate at the highest steam pressure and temperature ever for utility boiler operation, this unit may well set a new standard for power generating efficiency that will stand the test of time to come. A second 325,000-kilowatt unit is now being installed for use in the latter part of 1960.

Preliminary work is under way at the Peach Bottom

INDUSTRIAL PROGRESS—(Continued)

power plant site, on the Susquehanna river, ten miles above Conowingo Dam. Scheduled for completion the latter part of 1963, this temperate, gas-cooled reactor is being built by Philadelphia Electric High Temperature Reactor Associates, Inc., a non-organization formed by more than 100 investor-owned utility companies. The plant will have a capacity of 100 kilowatts and will be owned and operated by Philadelphia Electric. Philadelphia Electric's gas business is to grow in the suburban areas outside Philadelphia. The high gas house-heating installations connected to the company's last October. The number of gas-heating customers has increased fivefold in the past ten years. Heating business now accounts for two-thirds of company's total sales.

The company's steam heating sales are the highest in the nation. Its mains are being extended in the Washington Square district of downtown Philadelphia as urban re-development proceeds in that area.

G-E Announces New Alarm/Control System

Designed primarily for utilities, railroads and similar companies which monitor and control underground locations remotely from a control point, a new Alarm/Control system has been placed on the market by General Electric Commercial Products Department.

The new equipment may be used on various types of transmission lines such as microwave, carrier or wire lines. The control equipment employed are in the form of units which provide communication between the control point and remote locations. They may be used to check the location or as many as 100 different points.

The functions may be checked at a central point. The signals will indicate when a certain pre-scheduled action is taking place at a remote location where faults have occurred. At the control terminal, a small panel is mounted on the operator's desk and a cable connects this with the remote tone equipment. The panel has a bank of 10 indicator lights to show the stations being served and a second bank to show when any faults are present. A person is employed to select and check

the desired station and to operate remotely-controlled equipment at unattended distant points.

At the unattended station, the tone equipment is mounted in standard relay racks and requires only two panels 3½ inches deep. One panel has switching equipment for remote selection and the second contains the tone receiver and power supply.

\$180 Million Program Planned By Northern Illinois Gas

NORTHERN Illinois Gas Company estimates that its construction expenditures for the 5-year period 1960-64 will amount to about \$180 million, most of which will be spent for gas distribution facilities. About \$33 million has been included to provide for the development of underground gas storage facilities in or near the company's service territory. One of the major projects in this program is the construction of a \$10 million pipeline to connect the utility's Troy Grove underground gas storage reservoir with the load center of its distribution system.

Carolina Pwr. & Lt. Awards Contract to Ebasco

THE Carolina Power & Light Company has announced plans to build a 320,000 horsepower (240,000 kw capability) coal fired steam electric generating unit as an extension to its Goldsboro plant.

Contract for the plant addition scheduled to be completed in 1962 was awarded to Ebasco Services Incorporated of New York, according to L. V. Sutton, president, Carolina P&L Co. It is part of a long range construction program designed to meet the increasing demand for electric power in this rapidly growing industrial area.

During the past four years the company's peak load has increased 43-1/2 per cent, from 805,000-kw in August 1955 to 1,155,000-kw in August 1959. The company serves 416,000 customers in a service area covering almost half of North Carolina and a fourth of South Carolina.

A similar plant at Darlington, South Carolina, now under construction, is scheduled for completion in 1960.

(Continued on page 24)

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Bulletin Describes New Pneumatic Transmitting Rotameters

NEW Bulletin 18N, just published by Schutte and Koerting Company, describes this company's new Pneumatic Transmitting Rotameters.

Designated SK "Model 58" Pneumatic Transmitters, these "position-balance" type instruments transmit an air signal proportional to fluid rates of flow to remote-located indicators, recorders, controllers, or integrators. These Pneumatic Transmitters are designed for use with either glass tube or metal-tube Rotameters. They are mounted directly on, and are magnetically coupled to the Rotameter to sense the Rotameter-measured fluid rate of flow.

Copies of Bulletin 18N can be obtained by writing to Dept. M-Q, Schutte and Koerting Company, Instrument Division, Cornwells Heights, Bucks County, Pennsylvania.

Simplified Tape Punching Machine Centralizes Records

A COMPLETELY new point-of-sale device designed for jobs requiring reporting of transactions and sales to a central location has been developed by Burroughs Corporation.

The new machine, Burroughs Series P1100, will provide a low-cost unit for work not requiring the complexity of present punched tape equipment. It is especially aimed at reporting transactions from branch offices, field locations and other remote centers to a centralized data processing system.

Strictly a tape punching machine as opposed to card punching, the P1100 is a pleasingly, structurally styled electro-mechanical device with up to 13 columns of keys, printing and adding, plus rotary date and rotary numbers where needed.

It contains "enforced accuracy," since keys and motor bars must be used in proper sequence to operate the machine. It is directly geared so that adding, printing and punching are done at the same time.

So simple it can be operated by any person who can use an adding machine or cash register, a new punching speed is attained since no time is required for the punching operation. Up to 22 characters are punched sequentially and simultaneously (gang punched) with the printing.

Reliability and maintenance in branch offices and/or remote areas are

enhanced, since any adding machine or cash register serviceman can keep the device in top operating order.

In a typical commercial application, a sales clerk would add the sales slip and account for tax by entering the data on the machine's keyboard. Also entered would be the clerk's code designator, store department number, the customer's account number and the stock number and amount of each item.

At the touch of a motor bar the machine would operate, the information would be printed on the sales slip and, at the same time, punched on paper tape for future use.

The tapes from each machine in the store would be combined at the end of the day's business. The tapes would be fed directly into a computer or converted to punched cards revealing the daily sales report and the sales summary (merchandise control), commission and control ledger (sales audit), and customer statements and aging analysis (accounts receivable).

Engineered with the intention of using it in many different ways, Burroughs marketing officials envisioned broad use of the product, including Public Utilities—listing bills paid, meter readings, payroll data from branch offices.

AT&T Outlays for 1960 May Top 1959

CONSTRUCTION program of Bell System companies will be at least as much as the \$2,250 million expenditure for 1959 and maybe more, Frederick R. Kappel, president of American Telephone Telegraph Co., said in a year-end statement.

Mr. Kappel reported that the Bell System had a successful year in 1959 and said "prospects for 1960 are good."

He reported the increase in Bell telephones in 1959 will be well over 3 million and may possibly equal or exceed the previous record gain of 3,264,000 in 1946.

Long distance conversations are up about 10 per cent over 1958, he said, with the year's total expected to exceed 3 billion. "By comparison, we handled about 2 billion long distance conversations five years ago and 1½ billion 10 years ago," he noted.

He cited among principal 1959 service improvements the expansion of direct distance dialing; opening of a second trans-Atlantic cable linking this continent directly with continental Europe, and introduction of more con-

venient and attractive telephones.

About 15 million customers can their own long distance calls now, pared with about 8 million at the of 1958.

Mr. Kappel also pointed out "we are giving special attention communications needs of our business customers and we expect to see this effort in 1960."

He forecast that next year bring "continuing growth" in service. This means that the Bell company will keep on building a great deal of new plant. Construction expenditures for 1959 come to about \$2½ billion, our program for 1960, as we now, will be at least that much maybe more."

Gas Appliances Seen Top 1959 Highs Next Year

GAS appliance and equipment manufacturers expect sales of most of products will be as good or better 1960 than they were in 1959, all-time records were set for the of built-in ranges, furnaces, boilers and automatic water heaters.

Analysis of replies from members to a year-end questionnaire issued by the Gas Appliance Manufacturers Association shows that unit shipments creases for warm-air furnaces boilers should top the 1959 record 0.5 and 3.3 per cent, respectively.

A 2.9 per cent rise is seen in combined sales of free standing and in gas ranges, with shipments of ins likely to go 19.3 per cent above the 1959 record level.

Sales of gas-fired water heaters the coming year are expected to approximate the current year's all-time high.

GAMA's "General Business Outlook" for 1960, as reported by Edgar R. Martin, the trade group's director of marketing and statistics, alsovisions continued improvement in other product divisions.

Water Utilities Have Large Material Requirements

MORE than 800,000 tons of iron and nearly 600,000 tons of hydraulic steel will be required by water and sewer utilities between 1959 and 1961 to meet the needs of the expanding nation in this country, the Bureau and Defense Services Administration U. S. Department of Commerce recently.

The materials will be required (Continued on page 27)

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► A new and different approach to the educational needs of utility employees — called **THE P.U.R. GUIDE**—is now widely in use throughout the industry. Somewhat descriptively, the **GUIDE** is referred to as “a journey of understanding.” It takes the user through the economics of public utilities and through many other non-technical phases of utility operation. It was organized by and is issued under the general supervision of an experienced staff of specialists.

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Employment Supervisor, Gas Company

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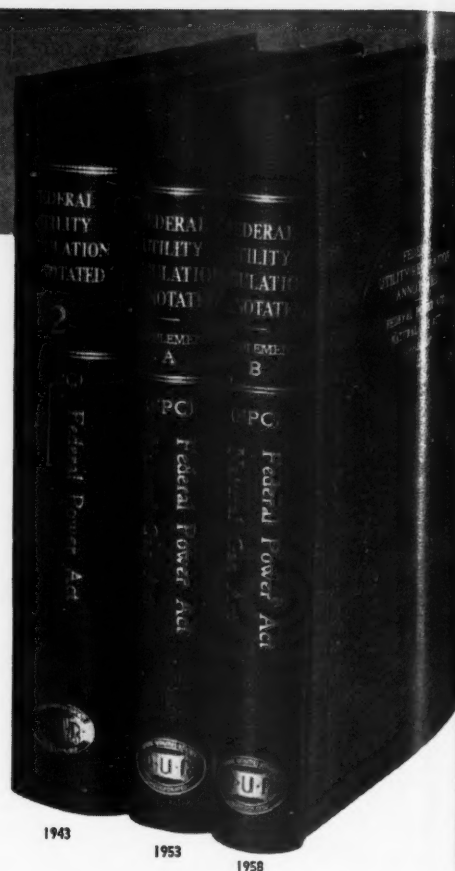
Questions are discussed relating to the determination of the cost of projects, accounting, rate-base determinations, rates, service and granting of licenses, including the question of licensing partially settled by the special law authorizing development of power by the New York State Power Authority. The extent of the Commission's jurisdiction, what constitutes interstate commerce, return allowance, cost allocation in the fixing of gas rates, and many other vital subjects, are also discussed.

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INDUSTRIAL PROGRESS—(Continued)

(Continued from page 24)

construction, maintenance and repair, and the volume represents an increase of nearly 75 per cent over the 1968 period.

The data are incorporated in a comprehensive study—Water Utilities, Requirements for IBBM Gate Valves and Hydrants, 1940-1958-1975—prepared by DSA's Water and Sewerage Industry and Utilities Division. Primarily, the study is intended as a guide for utility executives and technical associations, and as a long-range planning aid for manufacturers.

The study covers future requirements of iron-body bronze-mounted valves and hydrants used by public water and sewerage utilities, industrial and military and other federal agencies, and review trends of recent years. The estimates do not include items which may be used in industrial plants where piping is transported in fluids other than water or liquid gases.

"Water Utilities, Requirements for IBBM Gate Valves and Hydrants, 1940-1958-1975" is for sale by the Superintendent of Documents, U. S.

Government Printing Office, Washington 25, D. C. Price 10¢.

Alabama Power Plans \$10,000,000 Project

ALABAMA Power Company, Birmingham, has asked the Federal Power Commission for authority to build a \$10 million power project on the Black Warrior river in Tuscaloosa county.

The project would be located at the proposed redeveloped U. S. Government Lock and Dam No. 13, five miles upstream from Tuscaloosa. Alabama Power said it plans to use the energy created by the project to meet the increasing demands of its service area within the state.

Motorola Introduces Transistorized "Quik Call" Signaling Decoder

MOTOROLA has introduced a transistorized "Quik Call" selective signaling decoder for use with its mobile two-way radios, including the recently developed transistorized MOTRAC radio.

The "Quik Call" selective calling system enables a radio dispatcher to alert and talk to individual mobile units in his network without bothering other vehicle operators. When transmitting to a single mobile, the dispatcher presses a button on his "Quik Call" control console to activate and transmit a pre-set series of tone signals. These signals are received by all mobile units and fed to the "Quik Call" decoders. The decoder in the desired mobile activates its receiver's audio circuitry upon receipt of the tone code. All others remain inactive.

If the operator is working away from his vehicle, the "Quik Call" decoder can be connected to the truck horn or a light to signal the driver that he is wanted on the radio. The use of transistors in the system provides greater reliability, compactness and low battery drain.

Motorola also has expanded the capacity of its "Quick Call" signaling system. By adding two new sets of tone generating and decoding components, the number of possible code combinations has been increased to 4,300.

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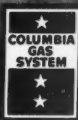
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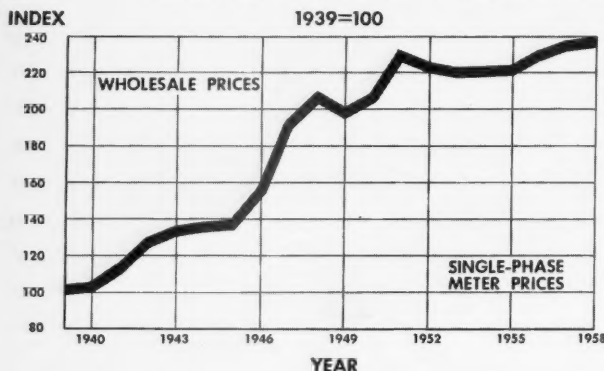
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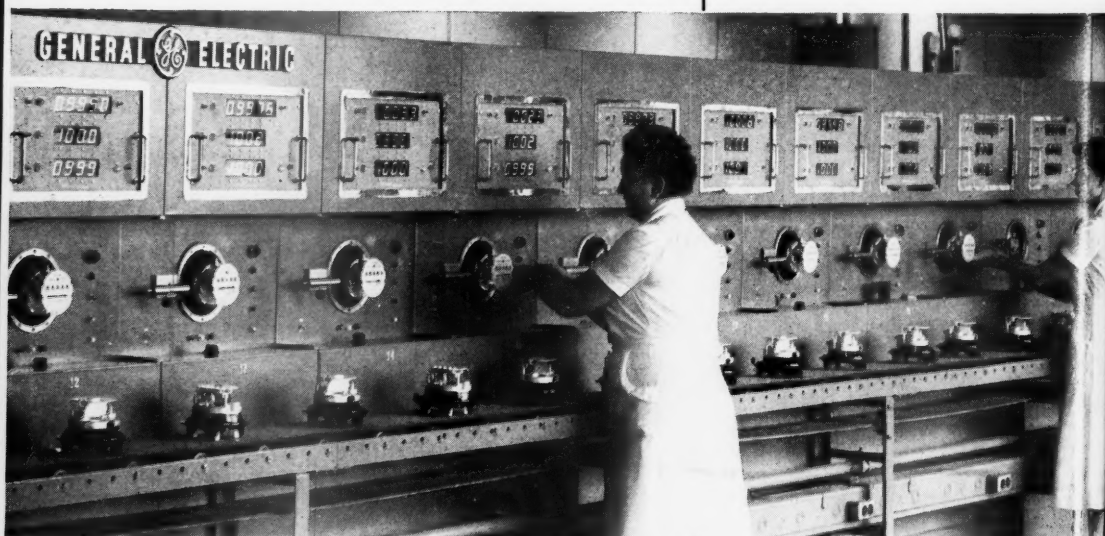
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